

In Arduis Fidelis: Vol I: History

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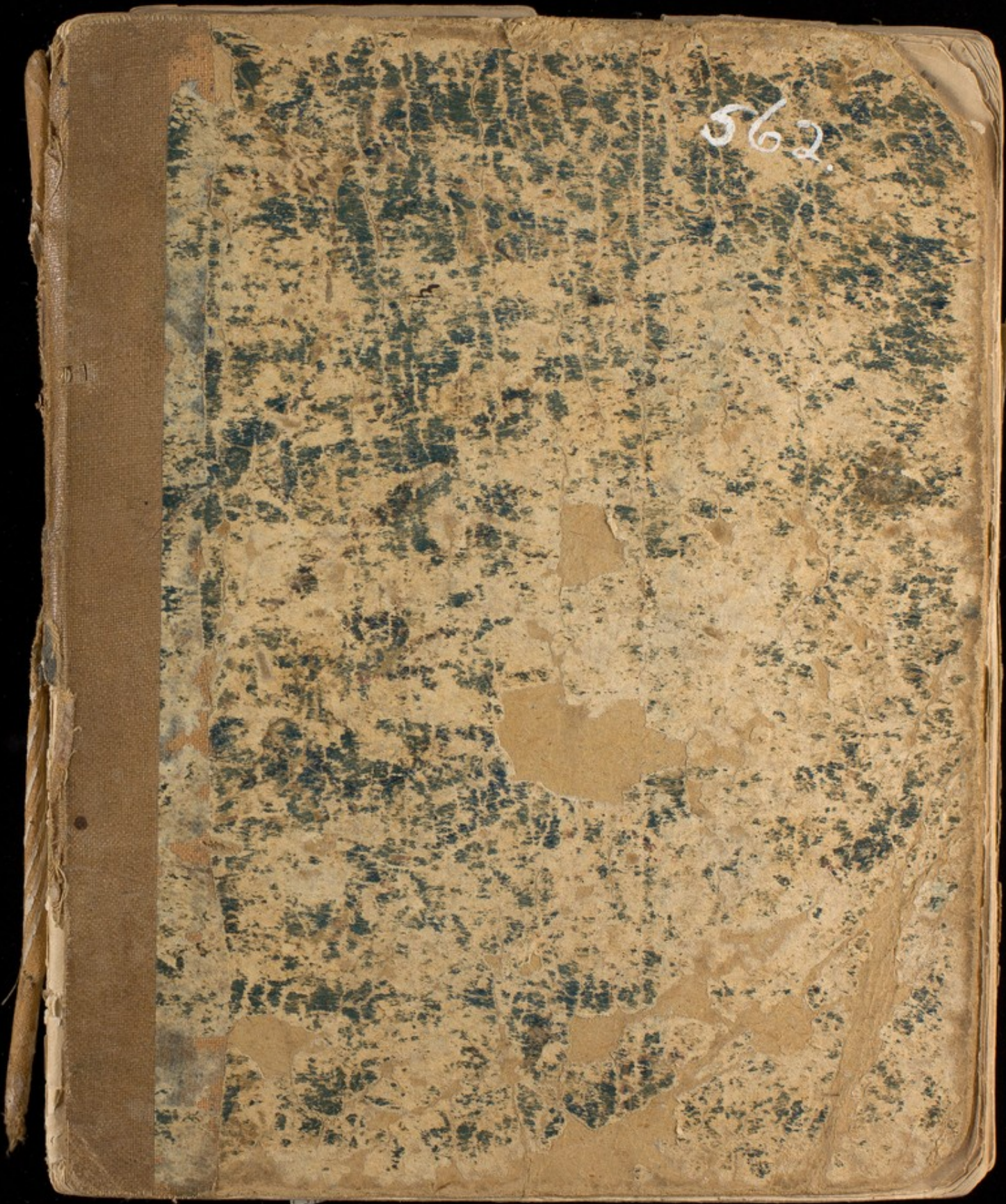
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" In Arduis Fidelis. "

A History of British Army Surgeons and their
Work.

The Army Surgeon.

Over that breathing waste of friends and foes,
The wounded and the dying, hour by hour,
In with a thousand, yet but one in power,
He labours through the red and groaning day.
The fearful morland where the myriads lay
Shines as a moving field of mangled worms:
And as a raw brood, orphaned in the storm,
Thrust up their heads if the wind lend a spray
Above them, but when the bare branch performs
No sweet paternal office, sink away
With helpless chirp of woe, — as, as he goes
Around his feet in clamorous agony
They rise and fall; and all the seething plain
Bubbles a cauldron vast of many-coloured pain.

Sydney Dobell.

Prior to Tudor Times . . . pages 1 to 40

From Henry VII to James I . . . pages 40 to 70

From James I to George I . . . pages 70 to 120

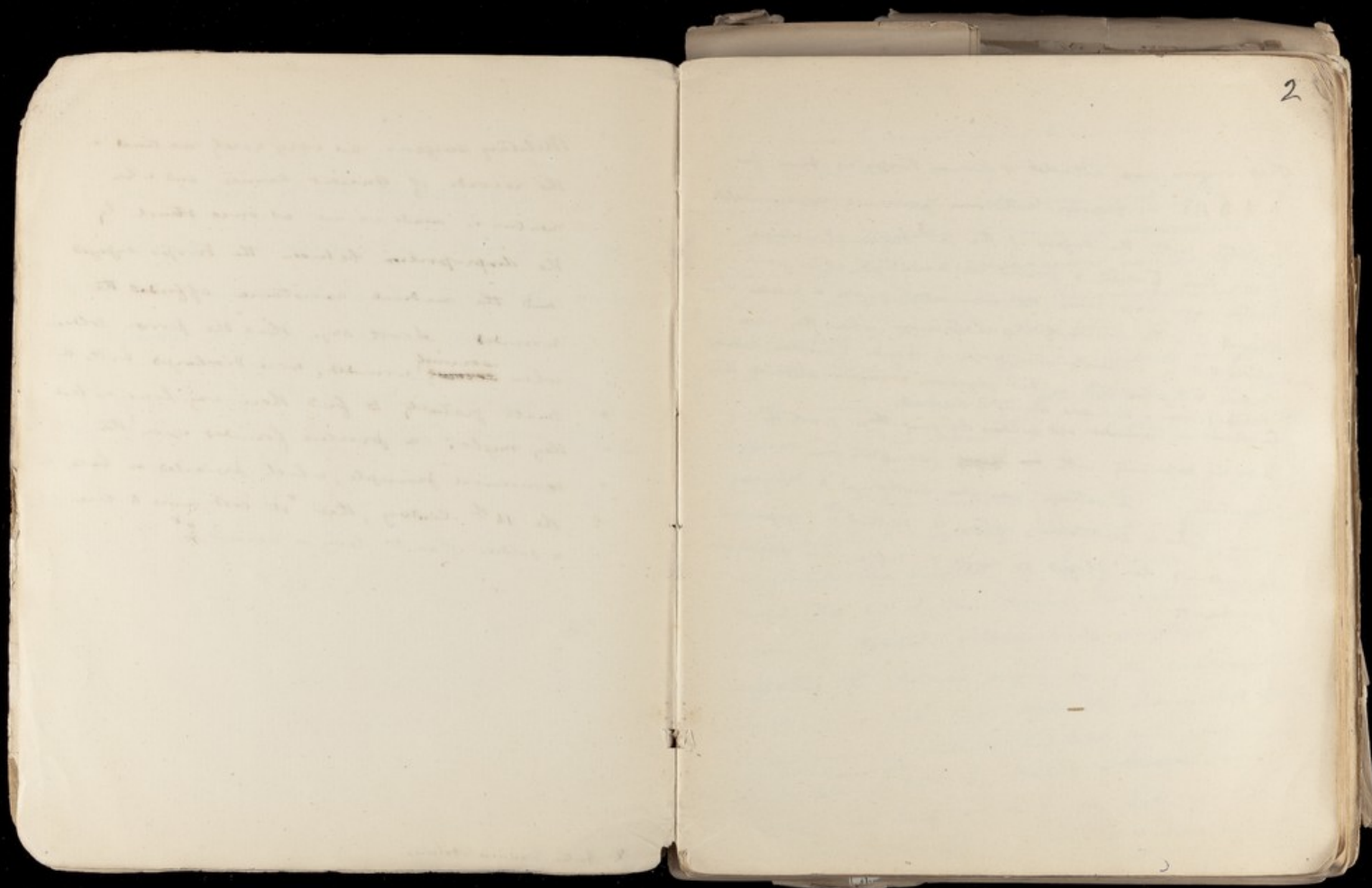
From George I to Victoria . . . pages 120 to 160

Victorian times . . . pages 160 to end.

"The surgery of the Middle Ages was a trade; Ambrose Paré and Jean Louis Petit converted it into an art, John Hunter elevated it to the rank of a science."

(Sir W. Mac Cormac in
Huntarian Oration 1899)

Military surgeons are very rarely mentioned in the records of ancient armies and when mention is made we are at once struck by the disproportion between the troops engaged and the medical assistance afforded the wounded. Scott says that the poorer soldiers when ~~seriously~~ ^{seriously} wounded, were discharged with a small gratuity to find their way home as best they might; a practice founded upon the economical principle, which prevailed as late as the 16th century, that "it cost more to cure a soldier than to levy a recruit."



That surgeons were attached to Roman troops we know for
In A.D. 138 the Emperor Antoninus personally communicated
by letter with the Surgeon of the 2nd Legion (Fulda) ^(Fulda)
From Livy, Tacitus & Justin we learn that after great
battles near large cities, the wounded Romans & Greeks were
relieved in to the homes of the Patricians where they were
attended to by surgeons. The poets of Rome, Xenophon, Arrian
Curtius & Vegetius tell us that physicians & surgeons attended the
Greek, Persian & Roman armies in the field.
Cassiodorus rewarded old soldiers by giving them grants of
lands in perpetuity with ~~no~~ ^{no} exemption from
taxation. A veteran was also authorized to carry a
cane, like a centurion, when he entered a camp and
he could not be flogged or made to suffer any ignominious
punishment.

3
From Caesars Commentaries we learn that the Romans
were in the habit of sending their sick & wounded to the
nearest towns ^{Other writers tell us that} whenever their army moved. While the Roman
armies were stationary in camp a ~~separate~~ ^{separate} part of
the camp was the "Valentinianum" was set apart for
their accommodation under the immediate eye of
the praefect of the camp, or when he should not
call the I.M.D. Invalids rendered incapable of
further active service were provided for as the public
expense but we cannot ^{now} say whether hospitals were
provided for them or not.
During the four hundred years of Roman occupation
of Britain - a military occupation - large numbers of
the British were enrolled in the Roman army &
towards the end of the Roman occupation ~~of~~
legions of British soldiers were employed in
supporting the Roman power on the Continent.
Later on we find that after the Romans left Britain
Roman military methods had left their mark upon
the people & both by British & Roman
armies. This being so it is very probable that
their ^{own} medical arrangements were also to some extent
adopted.

we know that the Romans had army surgeons and ^{it needs} no strain of the imagination to think that ~~the~~ ^{the} medicine of the Welsh & ^{inhabitant} ~~the~~ ^{the} descendants of the Britons, represented the army surgeon of Roman times.

"British Apollon" 1713 No 3 quoted in Condé
Jefferson's "Book about Doctors." (p. 3)

"In ancient Rome, when men loved fighting,
And wounds & scars took much delight in,
Man-meat was then had noble pay —
Which we call surgeons to this day."

During the same Crusade King Philip of France became
seriously ill. His symptoms were those of malarial fever. 
We read that he "saw to seek leeches, to whom he gave fair
presents, praying for their advice as to the best way of curing his
malady. The leeches took counsel together and God gave
them His grace, so that he recovered of his ailment."

Anchor "The Crusades of Rich I" quoting Ist Historien
of "Crusades."

4
The military surgeon of ancient times are very
rarely mentioned in history; perhaps they were not
in very great estimation, the superstitious abhorrence
of what was deemed a violation of the dead,
prevented their having an accurate knowledge of
the human frame, which is only to be acquired by
frequent dissections." (Grove)

We gather from the early accounts of Richard I's
Crusade that a compendium of leeches
accompanied the Crusaders but history is
silent as to their numbers or organization.
In the "Itinerarium Peregrinorum et Gesta
Regis Ricardi," the earliest and chief European
account of the 3rd Crusade, we read that after
the battle of Jaffa in 1192, the putrefying
carcasses of thousands of horses and the bodies of the dead
gave out a "stink" which made the air corrupt, King
Richard and his army were much distressed, and felt ill
to such an extent that they almost all died. "The
king lay very sick in his couch; the typhus continued, and the leeches
were whipping about the greatest semiterminal fever. They began to
despair and the (same) wild despair spread over the camp."

rich merchants of Amalfi who had won favour with the Egyptian Caliph. This hospital was for the care of wounded & sick pilgrims. The original endowments were gradually added to & the possessions ^{were} confirmed to them by a Bull of Pope Paschal II in 1113. Gerard the first master of the Hospital of whom we have mention died in 1118 & was succeeded by Raymond the Puy who held office for 40 years. He ~~pl~~ organised the order on a military basis and the Hospitalles are first mentioned as a fighting body in a Bull of Innocent II in 1130.

The organisation was similar to that of the Templars & comprised knights, chaplains & serving brothers under a Grand Master. The officers were termed conventuals, capitulars or honorary bailiffs. The conventual bailiffs were the heads of the different langues, of which in 1331 there were seven, Provence, Auvergne, France, Italy, Germany, Aragon & England. The English langue was under two grand priors one for England & one for Ireland. The heads of houses or commanderies were called Commanders or preceptors. All wore a black mantle with a white & spindled or preceptors. All wore a black mantle with a white & spindled or preceptors. Their chief English house was at ^{the gateway of which is still standing} Clarendonwell and over it was the chief English house who died in 1110. In Stephen's reign they owned also acquired lands in Essex, Hertfordshire & Cambridgeshire. They became very wealthy & on the suppression of the Templars in 1312 many of the possessions of the Templars came to them and on their behalf they made the defence of Christians against the Turk. From Palestine they went to Cyprus & then conquered Rhodes which they held for 200 years. Driven out by Soliman in 1512 Charles V gave them Malta where they remained until their Commander surrendered to the French in 1798.

The English langue has within recent years been revived. After a long & chequered career the old gateway of the Priory at Clarendonwell has again become the head-quarter of the langue. The Priory of Wales is now the Prior & the order devotes itself to the ~~care~~ ^{care} of the ^{but} wounded in war and is generally known as the Red Cross Society. The St. John's Ambulance Society is also a branch of the order. It has branches in nearly every English speaking town of any size at home & in the Colonies and the scope of its work is increasing yearly. During the Boer War the ~~St. John's Ambulance~~ ^{Order of St. John} again appears in active service with troops in the field for the St. John's Ambulance Association has supplied trained orderlies to many of the forward hospitals. These men have well maintained the good traditions of the order and it would be impossible to praise too highly the noble work they have done and to over appreciate the value of their timely aid to the overworked & over under-manned R.A.M.C. Crown Order has taken in the highest terms of their work.

for the relief of the sick and wounded in the
Military hospitals and the systematic care of the
sick & wounded may be considered to have
originated in Craniotomy times. In the 9th Century
Pope Leo V. had in his army ^{surgeons} ~~men~~ to attend to
the sick & wounded and in his country were
certain men called "deputati" who were mounted
& had on the left side of the saddle two straps
in order to enable them to take up the wounded
behind them and thus carry them off to the place of
battle. St. Louis of France is said to have been
so struck by the usefulness of surgeons in the field
during the Crusades, ^{that he} founded a college of surgeons in
honour of St. Cosme & St. Damian in 1268, and
ordered that all sick & wounded were to be treated
at all churches dedicated to these saints or the
Frost-biting of every man. The college of surgeons
of Paris originated at this time, the foundation
being laid by a French surgeon named ~~Peter~~ Pitard
in 1271 +

Deputate are said to have originated in the army of the Emperor Maximilian. They also carried water for the wounded.

4 Millier & Meyrick quoted by G. n. n.

IN cunning hands Patriotism may be made as profitable an exploitation as any of the less noble sentiments of amusement-seeking man. Few, if any, of the music-hall managers have lost their opportunity these past weeks to fatten off Tommy's distress in South Africa. From one end of London to the other the halls throng with Kipling's "Pay, pay, pay," and every conceivable type of the gentleman in khaki has been commissioned to take the place of the expensive ladies from the Continent, the world-renowned acrobats and the mazy dancers who erstwhile held the stage. Therein lie much profit and some unaccommodated salve to the conscience of the music-hall manager. It is cheaper, and more reputable, to engage a struggling baritone to sing a war ditty than to import a lady of undoubted virtue from Paris or Madrid. And the result is surer. The ladies with diamonds who sing in foreign tongues and dance expurgated editions of continental fandangoes do not always justify their place upon the bill or their claim upon the Treasury; but the mere waving of a Union Jack is enough to entertain an audience for an hour in these days of ecstatic patriotism. I know, because I have peeped into many halls since the Boers challenged Britain's might in Africa, and I have smiled to see everywhere audiences entertaining themselves and paying gladly for the privilege.

For a time, at the beginning, astute managers filled their houses and their programmes by the simple device of inviting a company of soldiers to view their show and then permitting the fact to "leak out" that Sergeants' Mess of the So and So's would be present on a certain evening. Thither flocked the public and cared nothing for the programme so long as they might

& vast possessions over Europe. ^{two} ~~other~~ ^{regiment} ~~regiment~~
 then to protect ^{& care for} pilgrims on their way 15+ from the
 Holy Sepulchre at Jerusalem. The order originally Noted
 from a hospital founded at Jerusalem in 1023 by some

see the men of battle drink beer and smoke cigars as ordinary men. When this entertainment pulled, the astute manager turned on "The Soldiers of the Queen" from the orchestra, and the audience roared itself hoarse with pride of race and admiration of the gentlemen in khaki. As time went on, the sergeant said it all left in the war, and the audience began to get bored.

They repeated the Recitations, and the public swarmed to hear Kipling's declamation from a music-hall stage. Under the spell of Patriotism, the music-hall programme had become as the curate's penny reading. Wherever possible the recitation has been converted into a song, for then the audience can take its share in the entertainment, and still further diminish expenses. In places the recitation or song has been strengthened by magic-lantern pictures of officers, politicians, and pieces of South African scenery. With these the manager may bolster up the most threadbare of programmes, and yet ensure bumper houses nightly.

An admirer of enterprise and an old friend of Crummles, I made a tour of the halls the other week. Everywhere was the smell of powder and cheers for the Queen. It did one's heart good and suggested a reformed music hall.

But the stock of programmes were wearisome, novelties were at a discount, old favourites only appeared in the terms of their contracts, and unfamiliar maidens tripped diffidently for the first time across the boards of a London music hall. I spied a friendly Crummles and interrogated him.

"Look here, old boy," I said, pointing to a programme, "this won't do, will it? You want something a bit fresher than this if you're going to keep the house going."

"H'm. House looks all right, don't it?"

"I'm not a soldier then?"

"No, he's a young pro, and I stick him into uniform and stick him about the house whenever things are getting a bit slow. He pays good as Dan Leno just now."

"And costs less?"

"A deuce of a sight less; but the game's almost up, all the regiments are at the front now and we'll have to turn on pictures and things. I wish the wounded would hurry home. Gad, what a caw the first of them hobblin' in will be!"

The stage was occupied by a troupe producing a moving one-act sketch of the war. The characterisation of the combatants was not very generous, but the public enjoyed it and demanded an *encore* of the National Anthem at the end. I again sought out Crummles.

"This must be paying you marvellously well. How do you get the people in?"

"Advertise for 'em. Work the war-boom for all it's worth, give the reciter's salary to the Lord Mayor's Fund, and give free entrance to all soldiers wearing uniform. It's worth a dozen Oheros or Yvette Guilberts. As I say, one Tommy Atkins is worth a Herbert Campbell just now. Take my word, I've stopped my demand for these heavily-priced items just now."

"And it's all pure patriotism, eh?"

"No, it's pure business except on the bills. But it's just what everybody else is doing. What price your newspapers and your khaki-covered shopwalkers, and even your parsons? Do you think they all lose by patriotism? As for me, I'm just giving the public what they ask for. It's in my tags and pretty gaiters and *risque* songs, so I needn't be afraid of the change. It's your business, not mine. I'll take it and welcome. I'll be a bad time for us always just before Christmas, and this war boom just comes when we want it. The recruiting sergeants don't complain of our working the patriotic lay. It pays them and it pays us. I'm here as a business man, and not a philanthropist."

I suppose the old cynic was right, but somehow I felt the gilt was off the gingerbread, so I left.

THE SON OF A SOLDIER.

You'll be sure to know my daddy,

Cause he wears a coat of red,

An' a rifle, an' a bay net,

An' a helmet on his head,

An' he's very big an' handsome,

An' he's named Sergeant Smith,

An' he's got to fight the Boers,

That our Queen is angry with.

He's the good Queen's faithful soldier,

So he's angry, too, of course—

I expect they *will* be frightened

When they know my daddy's cross!

Laddy took me up and nursed me

'Fore he went on Friday week;

"Sonney-boy," he said, "Here's sixpence,

Bless you, lad!" and kissed my cheek,

"Mind you write to me and tell me

How you're doing at your books,

How the baby's learning walking,

How your little sister looks,

How you're good and helping mother—

That's the news I want to find."

Mine is only printing writing,

But my daddy doesn't mind,

I'm my daddy's little soldier,

An' I've often heard him say,

Soldiers ought to go their duty,

I thought their duty's done;

Mamma says my daddy said I should;

But it's hard to do my lessons;

And it's harder to be good!

Teacher says, "Just keep on trying,

They'll come easy by-an-by."

Mamma says I do grow better,

And she'll write an' say I try.

Won't he smile! unless they've shot him!

Mamma said perhaps they would;

An' she cried and cried till she said—

But I don't believe they could;

No one could, when I grow tall,

I shall get a sword and rifle,

An' I'll go an' kill them all.

If I wake up big to-morrow,

Off to battle I should go;

Then I'd see who'd touch my daddy—

Please, dear God, do make me grow!

OVEN OLIVER.

When Rich I. received his death wound at Charles in 1196 we learn that his surgeon was blamed for his death. It is stated that he withdrew the arrow so unskillfully that the wound was made worse and mortification followed.

* Edward's life was in much danger for the weapon was poisoned, and though the master of the Templars administered what was considered to be a certain antidote it was without avail. At last an English surgeon came forward & pledged himself to effect a cure. He ordered the weeping queen-consort Eleanor to be led from her husband's presence; then he cut away the poisoned flesh and thus, under his care, Edward was able to appear in public on horseback within fifteen days.

Gilbertus Anglicanus appears to have been the first English surgeon of any ~~importance~~ ^{importance}. He lived about the beginning of the 14th century.

* The Crusades (Story of the nation series)

After the writ of Town in 1163 medicine fell into bad odour among the clergy altho we know that monks practised medicine as late as 1216. Pope Honorius III directed that no priest should practise surgery and that the clergy should refuse their benediction to those who professed it. During the 13th century barbers & surgeons may be regarded as synonymous. We read that barbers accompanied the army & that some were of a superior class as regards education. On the morning of the Battle of ^{de Montfort} Crusader (1265) & seeing an army approaching despatched his barbers, who were learned in heraldic lore, to the clock house of the abbey to ^{ascertain} ~~ascertain~~ the banners & blyones of the approaching force as to who they were.

Edward I appears to have had a surgeon with him in Palestine. When in 1272 that prince was attacked & severely wounded by a follower of that leader of assassins "The Old Man of the Mountain" his surgeon, by making deep incisions & cutting away mortified parts restored him to health in a fortnight.

We read that during feudal times ^{most of the} ~~each~~ the large nobles had a "leeches" to attend their households & they attended their masters to the field. In those times however the art of healing was largely in the hands of the women and many of them are spoken highly of by ^{the history from} ~~historians~~ ^{historians}.

in England, however, there was no such thing as a Jewish physician or surgeon in the 12th century. The Jews were not allowed to practice medicine or surgery in any part of the country. (See the account of the Jews in the 12th century in the history of the Jews in England, p. 1190.)

The profession of physic used to be almost entirely in the hands of the Church & the Jews, the Clergy having the bulk of the practice as curing body & soul. But the Council of Tournai decreed that the clergy should not shed blood, and therefore could not practice surgery, whereupon came about a differentiation. The monks being harassed, required barbers to shave their heads for them & the barber was generally the clerical surgeon's assistant. Henceforth the barbers took over the surgical part of the business, while their master continued the practice of medicine & became the predecessors of the present physicians. It is in this connection with the Church which explains the clause in the Act of 1511 that none should practice as surgeon or physician in the City of London, or within seven miles of it, until he had first been examined, approved, & admitted by the Bishop of London or the Dean of St. Pauls. The relation between the Church and surgery existed as late as 1601 and probably later for according to Manningham's Diary (1601-1603) "one Justinian Lyde, a surgeon, admitted to practice by the Archbishop's letters, was tried at Rochester for killing seven women by anoyntinge them with quicke-silver." It may be noted that the Archbishop of Canterbury has exercised his power of conferring the degree of M.D. as lately as 1854.

The state of medicine during the 11th Century is effectually delineated by quoting one of the laws by which its practice was restrained, and which were in general force over Europe till the twelfth century.

"If a physician injure a nobleman by blood-letting, he shall pay a fine of a hundred solidos; but if the nobleman die after the operation, the physician shall be given up to the his relatives, to do with him what they please." He might be impaled, flayed, or crucified without a word of remembrance from public law or opinion. (Sprenzel). (Russell, Hist. of Med. & Medicine)

During the period from the Congress until the end of the 12th Century there is little to be said about the medical profession and even less about the surgery of the time. I hardly only mention the name of the profession on a few occasions but in the course of the Congress, during the illness & death of Hubert Archbishop of Canterbury (1205), or in the references to the celebrated Jewish physician of King's Lynn who fell in the Jewish massacre of the Jews in 1190. The moral standard of the period was a low one & the profession was not one in which individuals could rise above the level of their age. (Bright)

John of Salisbury in the 12th Century epigrammatically described the professors of medicine as follows:

"They have only two maxims which they never violate,
'Never mind the poor; never refuse money from the rich.'"

Ed. II.

7

* The earliest mention of the payment of medicine men to attend the army, appears in the Wardrobe account of the 15th Edward II, A.D. 1322. In many of the Welsh corps there were officers termed "Medicis" but the meaning, whether a surgeon a physician is doubtful. None of these "Medici" were charged to the English troops and amongst the Welsh houses they bore no proportion to the numbers for we find one corps of 1,907 with only one and another 968 with two. The wages of all except the two last named were 6d. a day each; those which were raised upon the King's land in Carmarthen only received 4d. a day, namely the pay of the lowest foot soldier.

* From numerous entries in these Wardrobe accounts of Ed. II we learn that it was the custom to send disabled soldiers or others in the King's service to a religious house, as to an hospital, to be there supported either for a time or for life. This was called "having 'gaddisona' in a monastery."

* Archaeolog. XXXI, 340, 343 quoted by Scott. = John Grose

These Welsh Spear-men to which we find the "medie" attached were the first troops in the English Service to wear uniform and they first received it in 1337. They were ^{called} provided at the King's expense with a tunic and a mantle and it was expressly laid down that these should be of the same material and colour for all. The colour remains unknown. But at this time the material colour was white and in ¹³³⁷ ~~few years~~ ^{later} we find our troops in France clad in this colour ~~and white~~ ^{embellished} with the red cross of England. (See also p. 13a. mta.) The Welsh "medie" were therefore probably the first Army surgeons to wear the King's Uniform.

(Fortreue)

* The Crumville.

Edward III's Army in France had a train of transport consisting of 6000 waggon, stretching two leagues.

(Life of Ed. III - Mackinnon)

Ardenne lived at Newark near Nottingham from 1349 to 1370 when he came to London. A large number of his MSS are still extant. He appears to have been a great favourite of the Black Prince who gave him a grant of land in Cornwall. His posthumous works were of "the most eminent English doctors of the time." The most famous de "Fistula" and "De Arte Medicina."

Richard de Wye is appointed the King's Surgeon for life, with twelve-pence daily wages, and 8 marks per annum. (33 Ed. III m. 27) from Patent Rolls.

Edward III

9

In the Roll of the persons at the Siege of Calais, * in 1346, only one surgeon is named. He appears to have been part of the retinue of the Prince of Wales.

* Harleian MSS. No 3,968 (Quoted in Dent)

Edwardes

Wallace Princeps

Princeps	1
Banneretti	11
Milites	102
Armigeri	264
Sagittarii equites	384
Sagittarii pedites	69
Capellani	1
Chirurgii	1
Vexillarii	5
Vinarij	25
Pedites	480
Clamatores (or Organi)	1 - 1376

This surgeon was John Arden a Ardenne who was at the time of the French war advanced in years. He was the most eminent English surgeon of the time & several advances in surgery were due to him. He operated for fistula in ano & devised improved methods of Trepanning. He was also a historian & it

"Grove says

In the military establishment of the 18th of the said reign, as given in the acts of Walter Wentworth, Treasurer of the household; ~~he says~~, "there is one surgeon for the king's household troops; four physicians & one surgeon for ~~the~~ ^{the} Army of North Wales; two ~~doctors~~ ^{physicians} and one surgeon for that of South Wales; a number by no means sufficient for the number of men to whom they were appointed," (See p. 11 a.)

In Baron's History of 20. III we find that after the battle of Poitiers "and of the means out of which whose wounds seemed to require a considerable time for cure were by the general dismissed with a small pecuniary provision to carry them home."

Grove ^{to} accounts for the small number of surgeons employed by the ~~king~~ ^{the king} ~~says~~ ^{suggests} that "the inferior surgeons, styled barbers, were taken from the ranks, & therefore paid & mustered as private men."

may be that it was in this capacity that he accompanied the King to France. He is quoted as an authority on two questions, namely the adoption of three ostrich feathers as the Prince of Wales' Crest and the making of gunpowder. The recipe he gives for the latter is—one pound of Sulphur, two pounds of charcoal from willows, and six pounds of salt petre.

As Crag here appears to have been no surgeon for the care of the wounded. It appears that the custom to send some of the wounded to the nearest monasteries where they were attended by the monks. In case of those severely wounded and not expected to recover it seems to have been the ~~custom~~ ^{usual} for his comrades to put him out of his pain, just as the ~~English~~ ^{English} ~~do~~ ^{do} till within quite recent times. The slaughter of the enemy's wounded, more particularly of those not able to pay ransom, was also customary at this period.

In 1363 the most eminent French surgeon of the time Guy de Chauliac published a work on the healing of wounds in which he gives a classification of the ~~surgeons~~ ^{of the time} of France. According to him:—The first applied cataplasms indiscriminately to all classes of wounds & ulcers; the second applied some only;

Guy de Chauliac recommends the German treatment for wounds, viz, excoriation, rest, work, and calling Lewis.

In the account of Walter Wentraper before mentioned in the 21st year of Ed. III we find a list of "Rates & Wages of Warr by the Day". We find in the list that

- "The king's chaplains, esquier, sergentes of armes, men of armes, sergantes of offree, and other clerks of the king's house, marshall of the hall, ushers, and seneschals of the hall & chamber, sewer at dress, harbengers, portekers, butlers, surgeons, minstrelles, ductors or contours, every man by daye - - - - - 1s.
- "Archers on horse, rentenars of footmen, standard beavers of Welshmen, surgeons of Welshmen, and men of Welshmen, every man - - - - - 4d.

He thus used emollient ointments & plasters; the fourth, chiefly military surgeons, promiscuously employed oils, wool, potions, and charms; the fifth consisted of common doctors & all

five sects of surgeons; the first follow Roger, Roseland, poppy poultices to all wounds & abscesses; the second, mis and Theodore, and use wine only; the third to and Langfranc, and treat wounds with ointment & ster; the fourth are Germans, who attend to the promiscuously give charms, potions, oils, & wood; to women & ignorant people, who in all recourse to the saints. - G. de Cauliac, apud F. de

payday as regards. "The custom" a day or from each other continued for a long period for we find it in existence some hundred (?) years later.

No alteration in the rate of pay occurred in Rich. II's reign.

Guy de Chauliac recommends the German treatment for wounds, viz, excoriation, rest, work, and cataplasms.

In the accounts of Walter Wentrington before mentioned in the 21st year of Ed. III we find a 1363.
"Rat & Wages of Warr by the Day". We find that

- "The king's chaplains, esquier, sergentes of arms, sergantes of office, and other c
- "king's house, marshall of the hall, usher of the hall & chamber, sewer at dress
- "pantryers, butlers, surgeons, minstrels
- "or conteners, every man by daye - -
- "Archers on horse, rentenars of footmen, com
- "bearers of Welshmen, surgeons of Welshmen, and
- "crosses of Welshmen, every man - - - - - 4d.

He thus used emollient ointments & plasters; the fourths, chiefly military surgeons, promiscuously employed oils, wool, potions, and charms; the fifth consisted of common brutes & c.

"There are five sects of surgeons; the first follow Roger, Rodland, &c., and apply poultices to all wounds & abscesses; the second follow Brunus and Theodoric, and use wine only; the third follow Salviato and Langfranc, and treat wounds with ointment and soft plasters; the fourth are Germans, who attend to the armies, and promiscuously use charms, potions, oils, & wood; the fifth are old women & ignorant people, who in all cases have recourse to the saints. - G. de Cauliac, apud Fries, paying as regards. When a man is a day or from each other continues for a day period for we find it in existence some hundred (?) years later.

No alteration in the rate of pay occurred in Rich. II's reign.

Bay de Chaudron recommends the German treatment for
wounds, viz, excision, rest, work, and calling Lewis.

— after before mentioned

- " Archers on horse, veterans of footmen, 000
- " bearers of Welshmen, surgeons of Welshmen, and
- " cross of Welshmen, every man - - - - - 4d.

He thus used emollient ointments & plasters; the
fourth, chiefly military surgeons, promiscuously
employed oils, wool, potions, and charms; the
fifth consisted of ignorant practitioners and silly
women who had recourse on all occasions to
the saints, joined each other's writing perpetually &
followed each other in one undeviating track like
cranes. (Mulla's Surgery)

Soon after Cezzy surgeons were engaged to attend
upon troops on active service. Their engagements were
limited to the period of hostilities and on for a
particular service. A surgeon's boy was furnished a
day and he also had the privilege of shaving the
men and receiving from every soldier 2d. on
payday as "regards". This custom of receiving 2d.
a day from each soldier continued for a long
period for we find it in existence some hundred (?)
years later.

No alteration in the rate of pay occurred in Rich. II's
reign.

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Canes be treated by exposure followed by the counter. If the tumours were large & fully developed, he left it alone.

12
or a ruffard, but Henry IV in his manners to the sick. He is mainly advised in desperate cases even to promise recovery but ~~never~~ to tell the patients friends the truth, ~~to~~ to obtain from self pride and from blaming other physicians. A knowledge of Philosophy, Logic, Grammar, Rhetoric, Physics, Medicine and the science of mixtures is recommended. Simple wounds made with a sword are to be bound with compresses ^{up to 20} to bring the parts of the wound together and a powder composed of one part of frankincense, two parts of Dragon's blood, and three parts of quillbark applied. Larger wounds are to be stitched with stitches deep enough to leave no hollow in the wound. Painful wounds were to be well cleansed. Broken bones are to be placed in apposition and if an open wound is present it is not to be allowed to close until the bone has united. Paralysis of a limb was recognized to be due to severing of the nerves. Spasm and cramp in a limb was thought to be due to pinching of a nerve or muscle. In cases of bites by a mad dog it is advised to first ascertain if the dog be really mad and lapidate or a graphic and accurate account of a mad dogs symptoms. Another but recommended is to

Colnet was also entitled to his share of plunder but if his booty exceeded 20 pounds he was to give up one third to his Majesty. (Hemson)

Colnet & Morestake, in addition to 12 d. a day, received 100 marks a quarter as chief medical officers.

"Morestake was to be paid as a man at arms, 12 d. by the day, & his twelve assistants & three archers each 6 d. with the usual regard." (Gene)

Morestake's pay was £12 per quarter & 12 pence a day for subsistence (Hemson)

+ See "Ordinance made by Rich.^{II} Anno 1386 for the Government of the Army (Harl. MSS 1309) appended to Nicholas' Account. This 'ordinance' is a code of martial law and lays down rules regarding discipline, punishment and the removal of prisoners concerning which it says "Also that every man paie the third part of his wages for to his lord and master." It was also laid down that every English soldier "shoulde beleeve & obey" of St. George, large both before & behynde "on his apparel."

* Henry V. engaged "Mr. Nich. Colnet, phisician, to serve him for one whole year, in the voyage then to be made (A.D. 1415) either to the Duchy of Guyenne or to France. He was to bring with him three archers. If the expedition went to Guyenne, he was to have for his own wages 40 marks, and 20 marks for each of his archers for the whole year; if to France, for his own wages 15, and for each of his archers 6 d. a day, with regards." Colnet's position was not a bad one for we find 40 marks a year, or a shilling a day as the case might be, was the pay of an esquire in the same expedition.

* Henry also engaged Thomas Morestake and William Drabwarbyn as surgeons. Morestake was designated King's Surgeon, and agreed to attend himself and provide 15 persons, of whom 3 were to be archers and the others "hommes de son mestier." He petitioned for an allowance of money to provide necessaries for his office, and a proper number of assistants & carriages. The King granted him 12 persons and "i chariot and deux domers." + Sumpter horses

* Rymer quotes in Ser. II.

Colnet & Morestoke in addition were entitled to receive prisoners and plunder. They were also directed to take with them presses assistants "as many surgeons & other artisans as were needful to make certain ^{urgent} necessaries which were required" (made possibly Chancery) (Rymen)

made at Mantes by Henry V.
In the military code to ensure discipline in the army we read that the classes of persons subject to the Constable included in order "Soldiers, shoemakers, tailors, barbers, physicians, and workmen." (Livre)

See Shakespeare's Henry V.)

"There heard men (Colnet & Morestoke) get each a quarter's pay in advance; and that they might always have something for the next quarter, the king engaged to put into their hands, by way of pledges, as many jewels, or other articles, as might be equal to one quarter's pay and subsistence" (Baldwin) (Rymen)

14
of 32,000 men, natives
In the list of Henry V.'s army, we find, miners, gunners, armours, painters, pavilionmen, surgeons, groves, purveyors, smiths, saddlers, &c.
(See Retinue of Henry V., in Nicolas's Agincourt 1387)

Although it had been avowed to have 48 surgeons in the army it does not appear that the press was successful for only 15 surgeons were with the army when Agincourt was fought.

On the morning after Agincourt the provisions of all the severely wounded were killed by the English before marching off the field. To the slightest wound a small sum of money was given & they were told to find their own way home as best they could.

† Those prisoners who were not likely to recover from their wounds or who were not worth holding for ransom. (Nicholas's Agincourt)

We read that at the siege of Harfleur, just before Agincourt 5,000 men became sick with dysentery and were sent back to England.

① Shakespeare Hen. V. Act IV Scene VI.
"The French have remitted their scattered men:—
King Henry:— They say, I have killed his prisoners;
and the word is true."

A passage in ^{a contemporary} account of the Campaign of Agincourt appears to show what was done with the sick when the army was on the march through an enemy's country.

Thus we read that when Henry V was marching, after the siege and capture of Harfleur, towards Agincourt he came to Bores where there was a strong castle belonging to the enemy. An agreement was made with ^{captain of the} the enemy that they should not molest the English in their passage and the English stayed in the village for the night. Next day the army marched away and we read in ~~the~~ ^{the} account by St. Remy, who was present, that "the King of England had two gentlemen of his army very ill, whom he delivered to the said captain, and used to pay for their ransom a horse for each."

In other words the enemy took charge of the sick agreeing to give them up on their recovery if a ransom already agreed upon was paid.

In list of the retinue of Henry V. in his first voyage. - 3. Hen. V. we find.

"Mr. Mil. Colnet, Physician, with 3 Archers.

Thomas Morestede, and } Surgeons { each with 9 } 20
William Bradwardyn } more Surgeons } men

In the following year, namely in 1416, Henry wrote a writ to Morestede & Bradwardyn ordered thus, -
"Know ye that we have appointed to you, conjointly and severally, surgeons and other workmen, to take & provide without delay for the making of certain instrument necessary and fitting for your majesty, such as may be required for our present campaign beyond the sea."
(Charles Lang V.)

Strength of Henry V's Army at Agincourt
900 men at arms, 5000 archers (Blancham, Henry's Chaplain)
2000 men at arms, 15,000 archers (Montrelet)

Montrelet says French Army numbered 150,000.
and again that there were 6 French to each Englishman.
French lost 10,000 (Montrelet). English lost 1600 (Montrelet)

* From MSS quoted by Grose.

80. IV

Edward IV came to the throne in 1461 and appointed William Hobbes to be his physician & surgeon. An surgeon in the pay of the army surgeon also followed W^m Hobbes himself received 2/- a day the other surgeons one shilling.

In 14th - 20. IV amongst the different persons who engaged to serve the King in Normandy & France were the following physicians and surgeons.

Master Jacobus Fryle, King's physician, 2 s per diem with two servants at 6 d. per diem.

Master William Hobbes, physician and surgeon of the King's body, 18 d. per diem.

Richard Felde
Richard Glacie
John Smith
Richard Brightmore
Thomas Colard
Richard Clambie
Syrmon Coll

Surgeons every
one at XII d.
per diem.

William Coke
William Engthys
John Stanley
John Denigee
Alexander Redall

Other
Surgeons
every one at
VI d. per diem,
for their attendance in the
Saint Service beyond sea.

Twelve surgeons the same number as employed in Henry V's expedition.

17

The invention of gunpowder, and its employment
 in battle, produced many changes in the features of
 war. Of the consternation it produced amongst
 the troops we may form some idea from an
 account of an expedition with a Dutch Regt.
 (called the Kings Regt.) landed in August 1626.
 Referring to the invention of artillery he says,
 "It is thought the invention of cannon was first
 found at Murenborg, for the ruin of men; they
 at first, for a long time, used for battering down
 of walls & citadels, and for counter-batteries,
 till at last they were used in the field to
 break the squadrons and battalions of horse afoot,
 some carrying pieces called springalls, of four foote
 and a halfe long that shot many bullets at
 once no greater than walnuts; and how soon
 the trumpet did sounde, the enemy were
 thundered on, first with these & with stones
 of leadstone, so that the enemies were
 cruelly affrighted with them, men of valour being
 suddenly taken away, who before were

" went to fight valiantly and long with the sword / 9
" & lance, more for the honour of victory than
" for any desire of shedding of blood; but now
" men are martyred and cut down at more
" than half a mile distance, by those furious
" and thundering engines of great cannon,
" that sometimes shoot fiery bullets able to
" burn whole cities, castles, houses, or bridges,
" where they chance to fall; and if they happen
" to light within walls or amongst a brigade
" of foot or horse, as they did at Leipzig
" on the grave Von Torne his brigade, they
" spoil a number at once, as doubtless
" the devilish invention did within Wallenstein."

The new species of wound were appalling to
surgeons & wounded alike. We find the question
of the poisonous nature of the powder, and of
the balls projected by it and the heat & smoke
generated by the passage of the projectile
through the air or frequent series of arguments
in the works of the earlier writers on gunshot wounds.

Buty oil was a favorite remedy for gunshot wounds. 20
Prayers, incantations, exorcism, a charm were resorted
to the part of the treatment of those wounded by
these "devilish engines of war."
Pari & Gale, ^(hosp. ~~de~~ ^{Paris}) were the first to combat these
ideas of the venomous character of gunshot wounds
although the opinion was being generally held
for many years after.

The earliest ^{instance} record of a field
hospital dates ^{back} to 1484, in which
year Queen Isabella of Spain had an army
of 18,000 men
the field at Antegama, and she caused to be
established six large tents, with beds, and
all things necessary for the sick & injured.
In 1597 at the siege of Amiens, King Henri
IV, made similar arrangements, probably at
Antwerp Paris's instance, and the lesson was so
greatly appreciated by the soldiers that the
campaign became known as the "Velvet Campaign."
Louis XIII established the first field hospital at Agincourt &
the Hôtel des Invalides in Paris was created by Louis XIV.

Towards the end of the 15th Century Venereal disease first makes its appearance in Europe. Introduced by Spanish soldiers from Hispaniola in 1494, 1495; it rapidly spread to Naples, France & Germany, and it reached Scotland in 1497 where its ravages were so great that James IV, that "cunning chingon" issued a proclamation ordering those afflicted to go to the Island of Inchkeith, on pain of being branded on the cheek and banished for 3 years.

(See other notes.)

1505. When the surgeons of Edinburgh were in
this year incorporated under the denomination of
surgeons & barbers we learn that they were
required to ~~be~~ ^{be} able "to read & write, to know
anatomic, nature & complexion of every bodie of
the human bodie, and lykeways ~~to~~ to know all
wayes of the surgery that he may make
flembotomie in due time, together with a
perfect knowledge of shaving beards."

The Tutor

Army Surgeons exempt from carrying arms or armour ^{1513?}
Henry VIII's interest in surgeons. His portrait with Barber
surgeons.

Thomas Dale 1507-1587. Low social status of Army Surgeons.

Mary. Expedition to St. Quintin 1557. Mary's will.

Medical organization, pay, etc.

Elizabeth
Army in Ireland 1566. Sir John Smythe's letter. Bantley's letter.

Army raised to defend Ireland against Armada. 1588

Essex's Army in Ireland 1598 pay, etc.

Lord Montjoy's Army in Ireland 1599. pay, etc.

Social position of the Army Surgeon. Sir John Harington's
letter, pay etc., clothing. Elizabeth's Code for Camp.

Mess of Ralph Smith (unmistakable position of Surgeon)

Care of disabled soldiers (48 Lev. Reg.)

Code of instructions being drawn qualifications necessary
for Army Surgeons.

Woodall, Cloues, Peter Lowe. Paré.

A medical Bill date 1588.

In 1513, the Corporation of Surgeons (consisting of 12, a number less, as it appears, than that equal to the use of the metropolis,) petitioned Parliament to be exempted from bearing arms, or serving in jails or parish offices and succeeded in their request. (Pollie Ant)

TUDORS.

40

An Act of Parliament in 1541 exempted Army Surgeons from "bearing arms or being put on watches or inquests." (Copper King)

In 1513 according to Hayden's list of dates. At the date there were only 13 Surgeons in London.

We read that a bullet wound at this time usually meant death ^{at once} not from the wound itself but from the methods of cure adopted. A French writer & writer of that time (Tassara) wrote "Trust a doctor and he will kill you; mistrust him and he will wound you."

Thomas Gale born in 1507 was educated under Richard Ferris ^{afterwards} ~~sergeant~~ ^{surgeon} to Queen Elizabeth.

Also served in King Philip's army at St. Quintin in 1557. After leaving the army he settled in practice in London.

In his work he combated the generally accepted opinion of the time that bullet wounds were of a venomous nature.

He denied that bullets acquired heat ^{which is motion} ~~which is motion~~ & that bullet wounds in any way resembled ~~burns~~ a cautery.

In his works he frequently refers to the intrusion into medical practice of illiterate pretenders and the justice he finds of the condition of military practice in the time of Henry VIII is worth giving in his own words. "I remember," says he,

"when I was in the wars at Muret, in the time of that
"most famous prince, King Henry VIII., there was a great
"rabblement there that took upon them to be surgeons.
"Some were sow gelders, a horse gelders, with tinkers and cobblers.
"This noble sect did such great cures that they got themselves
"a perpetual name, for like as Thersalim's sect were called
"Thersalians, so was this rabblement, for their notorious
"cures, called dog-leeches; for in two dressings they
"did commonly make their cures whole & sound for ever,
"so that they neither felt heat nor cold, nor any manner of
"pain after. But when the Duke of Norfolk, who was the
"General, understood how the people did die, and that of
"small wounds, he sent for me and certain other surgeons,

Thomas Gale - Surgeon born in London 1507 apprenticeship with John Field also a well-known surgeon to Richard Ferris one of the chief London surgeons of the time. (Ferris was Sept. Surgeon to Q. Elizabeth 1562.) At Muret he refused to impair the lives of 11 soldiers by sewing bullets the position of which he was uncertain. Master of Barber Surgeons Co. in 1561. Published "The Institution of Chirurgery" in 1563, dedicated to Lord Burghley. Also a second volume in 1566 - a translation from Galen. Died in 1587.

Dist. med. Biography

Vicars, King Henry the 8, his Sergeant Surgeon was advanced by the king for curing his one legge. (Manningsham's Diary)

* → ^{holder of this} Sergeant-surgeon. The appointment ~~apparently~~
has received a salary from the sovereign, as
a retaining fee, on condition that the holder
attended the sovereign on active service
in the field.

Henry VIII, "the soldier surgeon"

Thomas Gale, served in the army of Hen. VIII, was present at
the siege of Montreuil in 1544, and, afterwards
became sergeant surgeon to Queen Elizabeth. He was
probably the first English Army surgeon to write specially
on the treatment of gunshot wounds. His book and
one on "Wounds, Fractures & Dislocations" appeared in 1563.
He recommended the use of a styptic powder the
ingredients of which were alum, lime, arsenic, and
strong vinegar. These were to be mixed & applied by means
of tow covered with white of egg. In 1566, and 1596
he published other works and discussed the inferiority
of persons then employed as medical officers. He says
they consisted largely of empirics, men of no ~~learning~~
education, who usurped the position of regular
practitioners, among such being iron gelders, horse
gelders, tinkers, and cobblers."

"Commanding us to make search how these men came to
their death, whether it were by the grievousness of their
wounds, or by the lack of knowledge of the surgeons;
and we, according to our commandment, made search
through all the camp, and found many of the same
good fellows, which took upon them the names of surgeons,
not only the names, but the wages also. We asking of them

41 c.
" whether they were surgeons or no; they said they were.
" We demanded with whom they were brought up: and
" they, with shameless faces would answer; either
" with one cunning man or another who was dead.
" Then we demanded of them what chyrurgery stuff
" they had to cure men withal: and they would shew
" us a pot or box, which they had in a burlap, wherein
" was such Trumpery as they did use to grease horses' heels,
" and laid upon scabbed horses' backs; and others that
" were cobblers and tinkers, they used shoemakers' wax
" with the rust of old pans, and made therewithal a
" noble salve, as they did term it. But in the end this
" worthy rabblement was committed to the Marshalsea,
" and threatened by the Duke's grace to be hanged for their
" worthy deeds, except they would declare the truths
" what they were, & of what occupation, and in the
" end they did confess as I have declared to you
" before."

A 'guild of surgeons' appears to have existed in London previous to 1369 and in 1423 an attempt was made to form a Faculty of Physicians & Surgeons in addition to the existing Company of Barber-Surgeons which had been incorporated in 1461. A Fellowship of Surgeons was also incorporated and given a grant to arms but was amalgamated with the Barber-Surgeons in 1540. - at about which time the practice of surgery was thrown open to all & sundry. Henry VIII appears to have taken an interest in the new society for of the King in regard of the Barber-Surgeons, Holborn great picture, less within the city.

The newly organized company was known as the "Masters or Governors of the Mystery and Commonalty of Barber & Surgeons in London".

In the same reign ¹⁵¹⁸ Louis, one of the King's Physicians obtained through Cardinal Wolsey letters patent from the King in 1518 incorporating himself and other physicians as one body. These originated the Royal College of Physicians. Their chief privilege was the power given them of preventing anyone from the practice of physic within 7 miles of London except by a license granted by them.

This monopoly was a cause of bitter contention between Surgeons & Physicians for many years, the latter endeavoring to prevent the Surgeons giving internal remedies; and, as late as 1632, the physicians obtained an Order in Council forbidding Surgeons to perform major operations unless a physician was present.

T VETERA.

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venting unprofessional treatment of venereal diseases by reason of the severity of these diseases and their effect upon the population.

Nova et Vetera.

SOME MSS. AND BOOKS IN THE BODLEIAN LIBRARY ILLUSTRATING THE EVOLUTION OF BRITISH SURGERY.

A Demonstration by Sir William Osler before the Association of Provincial Surgeons on the Occasion of its Visit to Oxford (March 27th).

THE Bodleian, as it may surprise some to learn, is one of the great medical libraries of the world, particularly rich in MSS., Greek, Latin and Arabic, in Incunabula, and in early English works. Including the Radcliffe collection at the Museum it probably outnumbers any of the special medical libraries of this country, and ranks in the

after the Bodleian Museum.
The history of surgery is grouped into three
Ardene

tion on appendicitis (1812).
who contested Hunter's views on the origin of gonorrhoea
also a work of the well-known surgeon, Benjamin Hall,
description of his ligature of the external iliac artery, and
nearly probably the most famous. I have put out his
illustrated were all distinguished pupils of Hunter's—Aber-
the Finsen Hospital in 1817. Abdominally, Parkerson, and
describing the operation which he saw while a student at
Hemorrhoids. It is a letter from my uncle, Edward Osler,
presented to be seen the description of the abdominal aorta,
John Hunter met a group of splendid students. Cooper is
and his hold on the group of splendid students. There is
William Hunter's description of arterio-venous aneurysm.
Ovarian Disease: On the Parts of the Human Testis, and
Surgery. His masterpieces are here: A Treatise on the
our profession—John Hunter, the founder of scientific
The second period opens with one of the immortal
description of the fracture which bears his name.
which he announces his law of the immutability of the mother
distinguished British surgeon, Abraham Colles, in one
inspection. There are also two communications
and his pamphlet on a new

venting unprofessional treatment of venereal diseases by reason of the severity of these diseases and their effect upon the population.

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The history of surgery in Great Britain may be roughly grouped into three periods. The first begins with John of Arderne, an army surgeon of the fourteenth century, whose treatise on *Fistula in ano*, issued in 1376, is the earliest known English surgical work. There are many manuscripts, which have been collated, and the work edited by Mr. D'Arcy Power in 1910. From those in the library there is on exhibition a beautiful fourteenth century example. There are many contemporary and even earlier English manuscripts with surgical references. Pembroke College has lent the *Breviarium Bartholomei*, written in the fourteenth century by John Mirfeld, who was connected with St. Bartholomew's Hospital and Priory, Smithfield. This magnificent manuscript formerly belonged to the Abbey of Abingdon. Four of the fifteen books are devoted to surgery.¹ He gives an account of a case of hydrocephalus tapped by his master with a cautery, in front and behind, and cured. Mirfeld was a pupil of Nicholas of Tyngewick, Fellow of Balliol and physician to Edward I, who practised in Cat Street near where we are now standing. Mr. Madan and Mr. Craster have very kindly put out two other interesting English manuscripts, one of which shows an illuminated figure of a body marked in different regions with the signs of the zodiac, and at the margin directions for venesection. The other is a manuscript written in England, of the Latin translation by Gerard of Cremona of the works of Albucasis, the Arabian surgeon of the eleventh century. From this author was very largely derived the practice of actual cautery, and a drawing in the manuscript shows various instruments for this purpose. The Bodleian possesses two of the earliest known Arabic manuscripts of Albucasis, which were translated by Channing in 1778, and published by the Clarendon Press. One of the volumes is opened to show examples of the cauteries.

In the Middle Ages the art of medicine was largely in the hands of the clergy. Surgery began to be formally separated from physic about the end of the thirteenth century, when the priests were forbidden to practise it; but they kept control by utilizing their barbers to do the minor surgical operations, particularly bleeding. In this way arose the close connexion between barbers and surgeons which persisted for many centuries. From the thirteenth century there were men who practised only surgery, and were known as Master Surgeons, of which there was a small guild in London as early as 1369. The majority of these men were army surgeons. For a short time, early in the fifteenth century, the Guild of Surgeons united with the physicians, forming a conjoint Faculty, under the control of a Director of Medicines. In 1540 the barbers and surgeons merged into the United Company of Barbers and Surgeons, and Holbein's great picture shows Henry VIII giving the charter. The union persisted, in spite of many attempts of the surgeons to break away, until 1745, when the Surgeons' Company was formed, which became in 1801 the Royal College of Surgeons.

In the century following Arderne there is not much to report in English surgery, but in Tudor times there arose

¹ Moore, *Medicine in the British Isles*, 1908.

This manuscript was a case
between Surgeons & Phys
Latter endeavoring to
internal remedies; and,
physicians obtained a
Surgeons to perform my
physician was present.

13

a remarkable group of surgeons, and the writings of Clowes of St. Bartholomew's Hospital, of Gale, and of Vicary are shown. These Master Surgeons, usually associated with the army, were, as Power remarks, men of good education, wide experience, and sound judgment. Mr. Craster has found a most interesting manuscript of one John Harvy, an army surgeon in the reign of Henry VII, and it is open at the place where he gives directions for making splints. The following is his account of an army surgeon of the period:

He that wyll be a surgyan yn the war muste electe & chuse hym a captyne or some noble lyberall man that loveth well men, & know what he wyll love hys surgyan a dey. Yff he be a Nobyll man that ys your capytyn he wyll love you as other noble men do, that ys iis. a day unto the chesyre surgyan unto the second surgyan xxx a day the thyrde surgyan xviij. a daye, the iij surgyan xliij hys seruant viij and a grote a peece of enery sowlar enery moneth. And hys handeryke muste be of hys masters colers a boate hys necke with a spatyll before and be hnd with the kynge's army in lyke maner be syls the curys that ye shall have a boate among nobyll men & other sowdysars yff he be parfyt in hys syens & be well acquentyd gentyll, close honeste & mery. And also knowe what your master wyll love you unto your cofor. Some Nobyll men wyll love hys surgyan yff he be lyberall xx nobyls some v some v markes some xli.

Mr. Craster has also put out a parchment with the seal, and attached to it a urinary calculus, oval in shape, about an inch in length, removed without cutting by John Hubbard from the bladder of Beatrice Shrove in 1593—an enduring memorial of his skill. The description is worth quoting:

John Hubbard did take the sayde stone owte of her blather which stone being here shewed and measured was confessed by the sayd Beatrice as the sayde Elizabeth Sheringham and also by a some of the sayd Beatrice Shrove to be the very stone that the sayde Hubbert did take from her without incision or cutting any parte of her body.

The direct successors of these men in the next century were two very distinguished surgeons—Woodhull and Wiseman—whose works are shown. Wiseman was a very strong character, who did for English surgery much that his contemporary, Sydenham, did for medicine. The volumes are open at cases, which are admirably described. A contemporary of Wiseman's was Lower, an Oxford man who wrote the well-known tractate on the heart. With Boyle, Christopher Wren, and Willis, he made many experiments upon transfusion. His book is opened at that chapter, and the plate shows the various cannulae. After Wiseman come the three well-known eighteenth century surgeons—Sharp of Guy's, Cheselden of St. Thomas's, and Pott of St. Bartholomew's—whose important works are on exhibit. There is also the report of a remarkable case by Robert Houston of Glasgow—the first operation upon an ovarian tumour, which he freely incised and cured (1701). There is here also the first account of the flap operation in amputation, by James Yonge of Plymouth, a sketch of whom, written some years ago, is opened at a description of his hardships as a naval surgeon. Two famous contributions by Charles White of Manchester, the first descriptive of the resection of the head of the humerus, and his pamphlet on *Phlegmasia Alba Dolens* are here for inspection. There are also two communications of the distinguished Dublin surgeon, Abraham Colles, in one of which he announces his law of the immunity of the mother who has borne a syphilitic child; the other contains the description of the fracture which bears his name.

The second period opens with one of the immortals in our profession—John Hunter, the founder of scientific surgery. His masterpieces are here: *A Treatise on the Venereal Disease*; *On the Blood*; *The Human Teeth*, and *Observations on Certain Parts of the Animal Economy*. William Hunter's description of arterio-venous aneurysm, and his folio on the gravid uterus will interest every one. John Hunter left a group of splendid students. There is here to be seen the description of Sir Astley Cooper's greatest operation—ligation of the abdominal aorta. Beneath it is a letter from my uncle, Edward Osler, describing the operation which he saw while a student at the United Hospitals in 1817. Abernethy, Parkinson, and Blizard were all distinguished pupils of Hunter's—Abernethy probably the most famous. I have put out his description of his ligation of the external iliac artery, and also a work of the well-known surgeon, Benjamin Bell, who contested Hunter's views on the unity of gonorrhoea and syphilis; and the account of Parkinson's first operation on appendix abscess (1812).

The first half of the nineteenth century saw an advance in surgical technique, but there were no developments to be compared with the demonstration of ether anaesthesia in Boston in 1846, and the work of Florence Nightingale in the Fifties, in revolutionizing nursing. I have put out Simpson's pamphlet dealing with chloroform, which he used a year after the employment of ether, and Florence Nightingale's *Notes on Nursing* (1859).

The third and final period was introduced by the work of Joseph Lister. You will find on exhibition his first account of antiseptic surgery in the *Lancet* in 1867; two other very interesting early pamphlets describing his early methods, and vol. i of his *Collected Works* which were issued a few years ago from the Clarendon Press.

A list of horse is first added in this list of
1557.

Mary. -

44

In Harleian MSS. No 6,844 which gives an account
of the establishment of the army sent to St. Quintin's
in 1557 ~~we~~ we find 57 surgeons were attached
to the Army which consisted of 500 heavy horse, 500
light horse, 4,000 foot and 200 pioneers with
a complement of officers and an artillery train.
They were distributed, two to the staff of the ^{Captain} General,
one to the Lieut. General, one to the High Marshal,
one to the General of the horsemen, one to the ^{Captain} General
of the ~~infantry~~ ^{Footmen} and one to the Master of the Ordnance.
The remaining 50 were distributed amongst the horse,
light horse and infantry in the proportion of one to
every hundred men. A surgeon of horse was paid 2s. a
day, of light horse, 1s. 6d., and of infantry 1s.
The ordnance and pioneers had no surgeon charged
for them.
The surgeon to the master of the ordnance received 8/- a day
and the same amount appears to have been the pay of
the other surgeons in the suite of the great officers.
One shilling a day was also the pay of the surgeon, the chaplain,
the sergeant and the drummer & fifer.

(Fortescue)

45

John De Vigo - *Libro i 225*. a medical writer in the 16th Century recommends for the "curative" of gun-shot wounds, "to cauterise them with oil of elden, mixed with a little beacle."

A medical bill from Notes and Queries (2 S., III 65).

Sept., 1588

The Note of Charges of Jno. Roberts, Surgeon.

This charges for the curing of Mr James Gerald in the Tower.

		S.	d
Impressis, P	and for 2 bottles of serope of 3 pinte a	xij	iiij
	peare at	ix	viii
Item,	1 ounce of the Beste Rubarbe at	xiiij	iiij
Item,	3 Bottels of Diet Drinke of a pottle apeare at	x	vj
Item,	2 Quills perfumed for his bed at	vj	viii
Item,	2 Purgations at	x	vj
Item,	4 ounces of perfumed Lascengio for his care	viiij	viii
Item,	4 ounces of serope for his nostrils at	vj	vj
Item,	4 ounces of Unguent for his care at	v	viii
Item,	4 ounces of Implaster for his care at	viiij	x
Item,	4 ounces of Pillis of Mastichini at	v	viii
Item,	2 drames of pillalucies at	ij	vj
Item,	1 drame of Troscies de terre sigilata		

The holle somme of charges is at $v^{ii} vj^d$

I stande to y^r hono^r remede for my paines taken in curing of Mr James Gerald at y^r hono^r pleasure Yo^r Lordshippes to comande during liffe.

J^o Roberts, Surgeon, XXIX vj

Again for the quarter ending Julie 1589 Totalis v^{ii} 10.

Elizabeth.

Mr. of Ralph Smith quotes in *Surv.*

"That every souldier, at the paye & age, doe give unto the surgeon 2 d., 'as in tymes past hath been accustomed,' to the augmentation of his wages; in consideration whereof, the surgen ought readilie to employ his industrie uppon the soare and wounded souldiers, not intermedlinge with any other cures to them noysome Such surgeons muste weare their baldricke, whereby they may be knownen in the hyme of slaughter; it is their charter in the field."

Brace, adds, in his day, the distinguishing badge of the baldrick over the shoulders as a protection ^{for their wounds} when on active service, was unnecessary because every surgen was easily distinguished by the apparatus of bandages, &c, he carried when on duty in the field.

A baldricke was a cross belt: ~~round about the~~ passing over one shoulder and under the opposite arm.

It is conceivable that it was used to carry ~~some~~ a pouch, containing bandages and other dressings for wounds, and was in this way distinctive.

A baldricke supporting a sword was not at all uncommon at this time & was during the Stuart period the most common way of carrying it.

"A good and skilful chyrurgeon is a necessary man to bee had in a companie; such a one as should work according to art, not practisinge new experiments upon a poore souldier, by means whereof many have been utterly maymed by a chyrurgeons practice."

Barnaby Rich, Pathway to Military Practice 1587

The necessity for a ^{organized} ~~systematic~~ arrangement for the collection of and removal of the wounded from the field was pointed out by Digges, in his "Stratagem". He says "It were convenient to appointe certaine carriages and men, of purpose to give their attention in every skirmish and encounter, to carry away the hurt men to such place as surgeons may immediately repaier unto them, which shall not only greatly incourage the souldier, but also cause the skirmish to be the better maintained, when the souldiers shall ^{neede for} not leave the field to carry away their hurt men."

The Spaniards had an arrangement of the kind at this period.

47
During the campaigns in Ireland ~~during~~ Elizabeth's reign the soldiers suffered terrible privations. This was largely due to the bad food supplied, Elizabeth introduced the custom of supplying the army with rations in part payment of their wages. The country did not grow grain and was largely covered with bogs and forests. The journeyers & contractors supplied food stuffs, principally biscuit, from England and these were of such bad quality that, added to the dampness of climate & other the customs of field service, intermittent fevers, & dysentery were very rife. Sir John Smythe in a letter of this date, after referring to the bad food supplies, says, "diverse thousands of their souldiers, partly by hunger and partly by evil lodging, and altogether by the small care and miserie of our sould ~~souldiers~~ ^{men} of warre, did perish. Besides that, great numbers of such their sick and sturied souldiers, by order of the Earle of Leicester, were in those partes embarked and transported into Essex and Kent, and other partes of England, to recover health; of which forsooke great numbers of miserable and pitifull ghosts, or rather shadowes of men, the booke and Raritie Cart & Cartes (that carried them) can testifie: of which scarce the fortieth man escaped with life."

We gather from the letter of Barnaby Googe, "a scholar, philosopher & poet," a poor gentleman who was driven to take service in Ireland that physicians were scarce amongst the soldiers in Ireland at this time. He describes

48
how "conynge byt from sea, my lodgyng on the ground,"
"the sudayne change of my dyett" and the barbarous relief
I have had hath brought me the country disease (dysentery)."
Later, he says, in a letter to Lord Burchley from Drogheda,
"I have, ^{my lord,} thank God, recovered ~~from~~ my leath, having no other
physygyon nor ffrende to looke to ~~by~~ but hym," and
celebrates his recovery to drinking with out of a "rusty skull."
There was at this time only one apothecary in all
Ireland, a Thomas Smyth, of Dublin, to whom, in
1566, was granted a concordatum to receive "the
yearly sum of one day's pay of the Lord Deputy, and
whole army in Ireland, and also 20 shillings of every
known councillor, in order to encourage the said Smyth
to continue in the discharge of his ministry in Ireland."
(N. & A. 35, iii, 182)

1588 In the list of the Army raised to defend England
against the Spanish Armada we find that the pay
of the surgeons to the "Lances" and "Light horse" was
1/6 a day. The same pay was given the gunners,
trumpet & clerk. (Irene)

See page 50. -

This act & Elizabeth probably were Elizabeth the
reputation ~~she gained~~ ^{for} ~~her~~ ^{her} ~~thoughtfulness~~ ^{thoughtfulness} for the
care of the wounded soldier ^{while} she lived.
In the Ballad of Lord Willoughby, we read,

"To the soldiers that were maimed
And wounded in the fray,
The Queen allowed a pension
Of fifteen pence a day,
~~And~~ And from all costs & charges
She quit & set them free,
And thus she did all for the sake
Of brave Lord Willoughby."

In the list of an army under Lord Mountjoy
in Ireland in 1599 we find that the Lord Deputy's
doctor of physic received £5 per week. Also 16 surgeons
the chief at £5, the others at 50/- and 40/- per week.

~~In 1598~~ From the pay list of Essex's army
^{and Q. Eliz. 24.4.1598}
in Ireland, we find that a troop of cavalry
~~consisted of fifty privates~~, each company
consisted of a captain, lieutenant, ensign, 2 sergeants,
one drummer, one surgeon, and 94 men.
The surgeon got the same pay as ^{the} sergeant and
the drummer, namely 1/- a day.
The privates got 8d. a day

(fine)

In a code of "instructions for forming camps" issued in Elizabeth's reign we find it stated that "the servants, the physicians, and chirurgeons of the Court are classed together in the allotment of ground." Such was the status of an army surgeon in ~~the 16th Century~~ ^{the 16th Century} the first most extraordinary who we remember the numerous eminent surgeons amongst the higher gentry & nobility of the time. King James IV may even be claimed as a surgeon for we read that he was the "most coming chirurgeon" in his realm. * In the early days of Elizabeth's reign Galle represented to her Majesty the unsatisfactory position of army surgeons.

* Henry VIII is said by France to have been one of the first physicians of his kingdom. Many of his prescriptions are still extant for he dabbled greatly in pharmacy. The Shrove MS in the British Museum is, one termed "A Booke of Placites, Specimetrapes, Crutments, Pulthes, etc., devised by the Kings Majesty, Dr. Butte, Dr. Chamber, Dr. Ormer, and Dr. Aspreston." Butte & Chamber were Kings Physicians, Aspreston

By 48th of Elizabeth the care of wounds & disabled soldiers was entrusted to parishes & county authorities. They were required to release him on presentation of a certificate under the hand & seal of the commander under whom he had served stating particulars of his wounds & service. A soldier a man found begging a certificate was to be punished as a common rogue & to lose his person.

The pension for a soldier under rank of officer was not to exceed £10, under lieutenant 15, Lieut 20. until next Quarter Session.

March 1643
The ^{Long} Parliament made a similar law during the civil war, by which each parish had to support wounds or disabled soldiers and the widows & orphans of soldiers. In Nov. 1643 parliament levied a tax of 14th was a month on the counties in its power for the purpose and commissioners for married soldiers were appointed to administer the money. A maximum allowance of 14/- a week was given to the families of disabled soldiers. In 1644, £2000 a week was charged on the Exchequer for the same purpose. In 1650 the trustees petitioned parliament for more money.

As H. de la Roche's physician & Chamber was a well known physician of the early part of the 16th century.

Wm. Clowes see p. 54.

Wm. Clowes served as a naval surgeon on board the "Orion" one of D. Eli's ships in 1570. He afterwards settled in London becoming surgeon to St. Barth's & Christ Hospital until in 1586 he was sent for, by letter, from the Earl of Leicester, general of the English Forces in the Low Countries, to come & take upon him the care of the wounded men by command of the Queen, together with William Bodonius her sergeant-surgeon.

Peter Lowe being complained of the manner of ^{ignoring} ~~conduct~~ in practice as surgeon, the King of Scotland gave him jurisdiction under his joining seal of examining all practitioners in surgery in the Western part of the Kingdom. This grant is said to have been the origin of the Glasgow medical School & of the Fac. of P. & S. there. His book passed through 4 editions. The last being published in London in 1654. See p. 55.

John Woodall, travelled a good deal on the continent, & is said to have made voyages to the East Indies. About 1612 he became a member the Surgeons Company, was elected Surgeon to St. Barth's & also by. sent to the S. India Company's medical charge of their dock yard at Blackwall.

+ This name appears in the Edinb. Court minutes first in 1614.

Clowes works.

"A Brief and Necessary Treatise touching the Cure of the disease now called Lues Venerea."

printed in 1585. *

In 5 yrs he cured 1000 ^{wounded} patients in St. Barth's and defused the great frequency of the disease at that time.

"A Jorney Practise for all young Chirurgians, concerning burnings with gunpowder, and wounds made with gunshot, sword, halberd, pike, lance, or such other." Lond. 1591

A gunshot was he used with small shot.

In checking haemorrhage after amputation he applies "buttons" of absorbent, styptic material to the bleeding vessels ^{posteriorly} ~~anteriorly~~ ^{resting} ~~on~~ in position by means of how paid lint ~~of~~ with strong pressure. Altho. acquainted with the French method of tying arteries he never found it necessary to do so.

* A Short & profitable Treatise touching the Cure of the disease called (Morbus Gallie) by printing, Lond. 1579.

remains of surgery

Wm. Clowes see p. 54.

Wm. Clowes served as a naval surgeon on board the "Ard" one of D. Eliz's ships in 1570. He afterwards settled in London becoming surgeon to St. Barth's & Christ's Hospitals until in 1586 he was sent for, by letter, from the Earl of Leicester, general of the English Forces in the Low Countries, to come & take upon him the care of the wounded men by command of the Queen, together with William Bodonius her sergeant-surgeon.

Peter Lowe having complained of the number of ignorant persons in practice as surgeons, the King of Scotland gave him privilege under his privy seal of examining all for admission in surgery in the Western part of the Kingdom. This grant is said to have been the origin of the Glasgow medical School & of the Fac. of P. & S. there. His book passed through 4 editions. The last being published in London in 1654. See p. 55.

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+ this name appears in the E. India Co. minutes from 1614.

51
A prominent surgeon of Elizabeth's time was William Clowes. He was a naval surgeon but also served on shore being sent to the Low Countries in medical charge of the English Army which was then aiding the Dutch against Spain. In 1585 he published a book on "Dysphilia" in which he recommended the use of mercury as a specific. In a work on "Furthest Wounds" which also came from his pen he recommended the use of ~~various~~ ^{emollient} applications to them.

Peter Lowe who is said to have originated the medical school in Glasgow was also an Army surgeon in Elizabeth's reign for two years "Chirurgien-major" and has followed his master, Har. IV. in the way, 6 years. to the Spanish Regt. in Paris. In 1596 he published a discourse on the whole art of Chirurgery. His method of performing amputation was to chop the limb off by means of a hatchet & to check the ensuing haemorrhage by the application of red hot irons to the stump. He also advocated the use of the heat of actual cautery. Another prominent Army surgeon who lived in the 16th Century was John Woodall. In 1589 he accompanied the English Army under Lord Willoughby which proceeded to France to the aid of Henry IV. In 1626 he was director of all the medical arrangements for the E. India Company then in its infancy. He was the first to recommend lime juice in the treatment of scurvy - a disease which

John Worsall wrote "The Surgeon's Mate" which gives a list of instruments, utensils & medicines of a surgeon's chest with a description of their uses and qualities. In 1628 he published "Viaticum, or Pathway to the Surgeon's Chest." In this book, he describes the trephine, which he is said to have invented.

He was in London during the time of the plague of 1625 and 1636. from which he suffered on two occasions in a mild form. He and wrote a treatise on the Plague & Pestilential Fevers. His opinion of the causes of the disease are expressed under the heads of celestial & terrestrial causes. After he regarded it as a punishment or mark for their sins and then goes on to say the terrestrial cause is "venomous and stinking vapours arising from fens, standing ponds, or pools, ditches, lakes, dunghills, swiches, channels, vaults, or the like; as also unclean slaughter-houses or the like of beasts, dead carcases of men, as in time of warre, and of stinking fish, fowl, or anything that hath contained life, and is putrid; as also more particularly in great cities, as in London, the unclean heaping of houses, lanes, alleys, and streets; from those recited, and the like infectious venemous vapours, by warmth of the sun exhaled, are apt and able to infect the living bodies of men, and thereby to produce the plague, which once produced, is too apt by infection to spread itself, and become popular, as expensive too much observeth." To these he adds "a scarcity or want of food; and the use of what is unwholesome"

was at that time very common both in the Army & the Navy. 52 He wrote several books between 1612 & 1639. His remarks on surgery show a great advance on his predecessors. He follows his contemporary Paré in his method of employing ligatures to arteries after amputation. He says, "If the leg be taken off above the knee, there is the more danger also there is great care to be had to the great vein & artery — namely, that thou take them up and pierce them through and make strong ligature about them, which must speedily be done if thou cannot do it." He is also said to be the first surgeon to advocate amputation through a joint.

"A treatise faithfully and plainly declaring the way of preventing, preserving from and curing that most fearfull and contagious disease called the Plague. With the Pestilential Feaver and other the fearful symptoms the accidents incident thereto. By John Worsall, Surgeon to St. Bartholomew's Hospital, &c. Lond. 1639." "The Pestil" Plague at this time & generally was commonly known as the "Bub" — bub meaning a bub. Worsall's description of the Plague is as follows. "The pestilential bub or boyle cometh on ever furiously on, and as in a rage of a Feaver, and as being in heat. Sometimes it lighteth on or near the region Throat, but more often lower upon the Thigh, pointing downward with one end, the upper part and towards the belly being commonly the highest or the fullest part of the bub, the whole thigh being also inflamed." (Creighton)

Extrait from a letter written by a military officer
— Sir John Harrington — in the reign of Queen Elizabeth
quoted in Hermon's Military Song, shows the estimation
in which army surgeons were held at that time.
"Every captain of one hundred footmen doth receive
weekly, upon every Saturday, his full entertainment
of twenty-eight shillings. In like case, every
lieutenant fourteen, an ensign seven, our sergeant,
drum, and fife, five shillings pay, by
way of impress, and every common soldier three
shillings, delivered to all by the poll weekly.
To the four least lower officers two shillings
weekly, and for every common soldier twenty pence
weekly is to be answered, to the full value
hereof in good apparel of different kinds."

The "good apparel of different kinds" for the
"four least lower officers" were given in a list as
follows.

In winter.

53

A carrock of broad cloth with laces, & trimmed with
silk lace, 27 shillings & six pence.

A doublet of canvas with silk buttons, and lined with
white linen, 14 shillings and 5 pence.

Two shirts & two bands, 9 shillings and 6 pence.

Three pairs of Kersey stockings, at 2 shillings and 4 pence, 7 shillings

Three pairs of shoes of best leather, at 2 s. 4 d. 7 shillings

One pair of Venetians of broad Kentish cloth, with
silver lace, 15 shillings & 4 pence.

In summer

Two shirts & bands, 9 s. 6 d.

Two pairs of shoes, 4 s. 8 d.

One pair of stockings, 2 s. 8 d.

A felt hat & band, 5 s. 5 d.

+ Venetians — a sort of long trousers — gusset

William Clowes on Syphilis. —

Breighton tells us that W^m Clowes was the first original English writer on the pox. In 1579 his book appeared, dedicated to the Society of Barber & Chirurgeons. This appears to have been a new edition of ~~an~~ ^{work} on the same subject published 3 years before. He ~~refers~~ ^{calls} the disease "the Morbus Gallie in a Morbus Neapolitanus, but more properly he does Venerea" or "in English the French Poxe, a ~~very~~ ^{very} sicknes very lothsome, stinking, troublesome, and ~~dangerous~~ ^{dangerous}, which spreadeth itself throughout all England and overfloweth as I thinke the whole world." "It is wonderfull to consider how huge multitudes there be of such as be infected with it, and that daily increases, is the great danger of the commonwealth, and the staine of the whole nation; the cause whereof I see more so great as the licentious and beastly lives of a great number of rogues & vagabondes." He goes on to say that he with three others in five years had cured 1000 more persons of the disease in the Hospitall of St. Bartholomew. "For it hapneth in the House of St. Bartholomew very seldom but that among every twentie diseased persons that are there in, fiftene of them have the pox." He also says "an infinite multitude are

in doing ⁱⁿ "cure" at "St. Thomas Hospital and other houses
about the city."

The disease was evidently of severe type for Clowes
describes the skin ^{with nothing} as being covered with "pustules" or
"whelks" - a reference probably to scabies.

It would appear from Clowes & other writers of the
time that the disease showed constitutional manifestations
from the outset.

See p. 51. Peter Lane in 1596 published an essay entitled

"An easie, certaine, and perfect method to cure
and prevent the Spanische Sickness," based upon
his experience abroad.

(Life & Works of Master Peter Lane.
J. Fendragon, Bloomsbury, 1889)

See p. 51. John Woodalls' 'Scurvis mate' appeared in 1617.
He published it "chiefly for the benefit of young
sea-surgions employed in the East India
Companies affairs." The book is a practical
manual dealing chiefly with fractures, dislocations,
amputations and the like but it also deals
with "the scurvie, the fluxes of the belly, of the
Collicis and iliacs passies, Teneasms and
syctus anni, the Calbertures." He tells us
"Scurvy is a disease of the spleen." "It is plain
that this grief is a long fore disease with
obstructions of the liver, or spleen, or both; & also
it appeareth that the head is much diseased,

and that there is great great obstruction in the brain, 56
for that the eyes not only look red coloured, but also
the gums portrety, and the teeth grow loose, and all the
sundry parts of the body bear their part in the disease,
for the shrinking & withering of the sinews, with the great
pains the party hath, declareth no less."

He recommended bleeding, and pills of gamboge or
saffordine but told the young surgeon to be very
careful to what extent he used these remedies as
"excessive depletion" makes the disease worse."

He also recommended lime juice very strongly, "each
morning two or three Spoonfuls, and fast after it
two hours," and if you add one Spoonful of aqua
vitae thereto, & a cold Stomach it is better."

He is the first medicine writer to recommend lime juice
in Scurvy but he probably based his treatment on
the experience of Capt (afterwards Sir) James Lancaster
in 1601. Woodall appears to have been personally
acquainted with Sir Richard Hawkins, Lancaster, and
the other celebrated sea captains of the time

In 1562 Elizabeth sent a large force under the command of the Earl of Warwick to Normandy to aid the protestants, but our allies ^{then} made peace with the French Court and the joined in an attempt to expel the English Garrison of Havre. Havre held out for two months and then the garrison surrendered on honorable terms. Plague broke out ^{in Havre} ~~throughout~~ during the siege and Stowe says 'How daily great numbers of men, so that the streets ^{lay} were full of dead corpses.' The return of the English troops to England ^{in 1563} led to an outbreak of plague in England, where it made great havoc, especially in London.

In 1585 The Earl of Leicester with 1000 ^{horse} foot & 5000 foot landed at Flushing to aid the Netherlands. In April 1586 the troops took the field and were at first successful but failed before Zutphen, where Sir Philip Sidney fell.

In 1588. The A fleet of 140 ships and three armies, ^{of} 30,000 to attend the Queen ^{at get up coast} 20,000 on the south coast, and 2,000 at Tilbury were raised to resist the Armada.

In 1589, An ~~English~~ English force landed in Portugal
besieged the Burgo & town of Vigo returning to their ships
with much plunder.

Lord Willoughby goes with 6000 men to France to aid
Henry IV. In 1591, Sir John Norris & the Earl of Essex also
took reinforcements to France. About 7000 men.

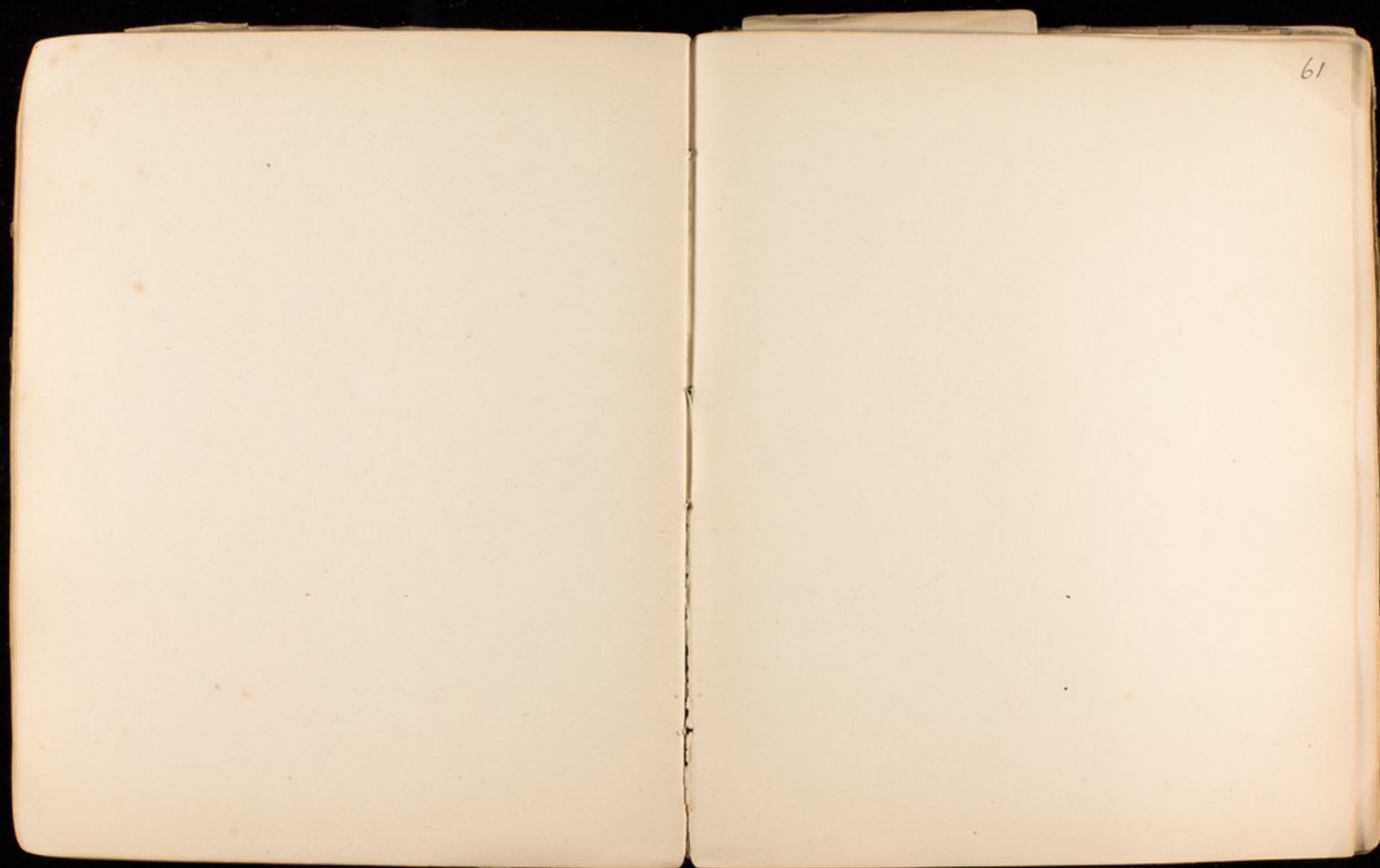
1591 Trinity College, Dublin, founded.

1592. 2000 men go to France.

1596. Cadiz taken & Coast of Spain ravaged.



60



...for the ... of
above ... finally
7th March, after ha
From ... sure due to typhus

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camp came about in
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Wittenberg. By arran
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So day in, day out, Mrs. May thanks
I found your card placed in dining
car, so that something to the good,
I did not get out today it was such
a miserable.

And I can hear regularly now
from her husband.
Be sure to ask how our cat
is. And remember me to the
dear old Dean.

Goodbye, Goodest love
Ever your loving
Abigail

Get the addresses of two good
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in Gloucester St. the other
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 Dr. Scott 325.
 Mrs. Helen Reide 1 F
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Appl. Robt. Nightman

Superintendent Surgeon

Robt. Smith 345.

Thos. Baker Reide 1 F

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Memorandum.

From

MESSRS. HOLT & Co.,

HOLT & Co.
Sir Vesey Holt
M. D. V. Holt
A. V. Barber

ARMY AGENTS,

LONDON, S.W.1

19th August 1920
To Lt Col. H. A. L. Howell
R. A. M. C.
16 Royal Circus
Edinburgh

ARMY COUNCIL INSTRUCTION 342 OF 1918,
re INCOME TAX ON ARMY PAY.

Army Pay is legally taxable on issue, but it is frequently impossible to commence with a correct assessment. Consequently adjustments are necessary, either during the currency of the fiscal year or after its close, when all the facts become available. As Official Agents for the War Office we are bound to act on Inland Revenue instructions as to an Officer's assessment, whether relating to the current or prior years' assessments, when passed to us by the Commissioners of Income Tax, War Office.

In accordance with your income tax return for
~~Under instructions from the~~ the fiscal year 1918/19, an adjustment is
relating to
necessary in the Income Tax provisionally charged on your Service Pay for that year.

As explained above, we have no alternative, but to make this adjustment, the sum required being a deduction from accruing pay; but in order to make the transaction clear, the amount, viz., £ 1 : 14 : 2, is debited in account as a separate item.

The following statement explains how the amount was calculated and also gives particulars of the adjusted assessment of Service Pay for the year:—

*Service Pay issued by us	£ 788 : 13 : 8	Total Pay -	£ 788 : 13 : 8
do. do. by	£ : : :	less	
other Accountants	£ : : :	maintenance of uniform	£ 30 : - : -
		Assessable Pay -	£ 758 : 13 : 8

Relief authorised by the Inland Revenue Authorities:—

(a) Abatements from Service Pay.

Scale abatement	£ : : :	Wife	£ : : :
Life assurance	£ : : :	Children	£ : : :
	£ : : :		£ : : :

Taxable balance of pay £ 758 : 13 : 8

(* Includes Children's allowance and gratuity if any.)

Tax thereon at Service rate of 1/1 £ 66 : 7 : 8
Tax to adjust on annual charges (interest, &c.)
not covered by private income - £ : : :

less Tax £ 66 : 7 : 8

(b) Relief from unearned income - £ 3 : 8 : 8

(c) Limit Relief - £ : : : £ 3 : 8 : 8

Net tax due on pay - £ 62 : 19 : -

Tax charged provisionally £ 61 : 14 : 10

Balance now due as above £ 1 : 14 : 2

This adjustment is in accordance with the return prepared by us. The original charge of tax is prepared by us.

Wm Kerns. H.A. 12. 5. 15
 at Brimley under Herman
 till 18. 6. 15. Then to Centrop
 with wounded to Tacono General
 Hospital under S.S. Bliska till
 Sept. 20. Then with Fenna
 Comalbrant W & 4 Dordelaga

H.M.
 Alex. Loeke As. 78 Ft. 1865
 S. 87 Ft. 1813
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Egypt 1807. Captain of Alexandria
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APATHE

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The Committee had a large number of men brought to them to bring about an improvement in the conditions of the camp. They were received in

F.A. und Karl. Gesch.
und Bergbau

F-H Camp
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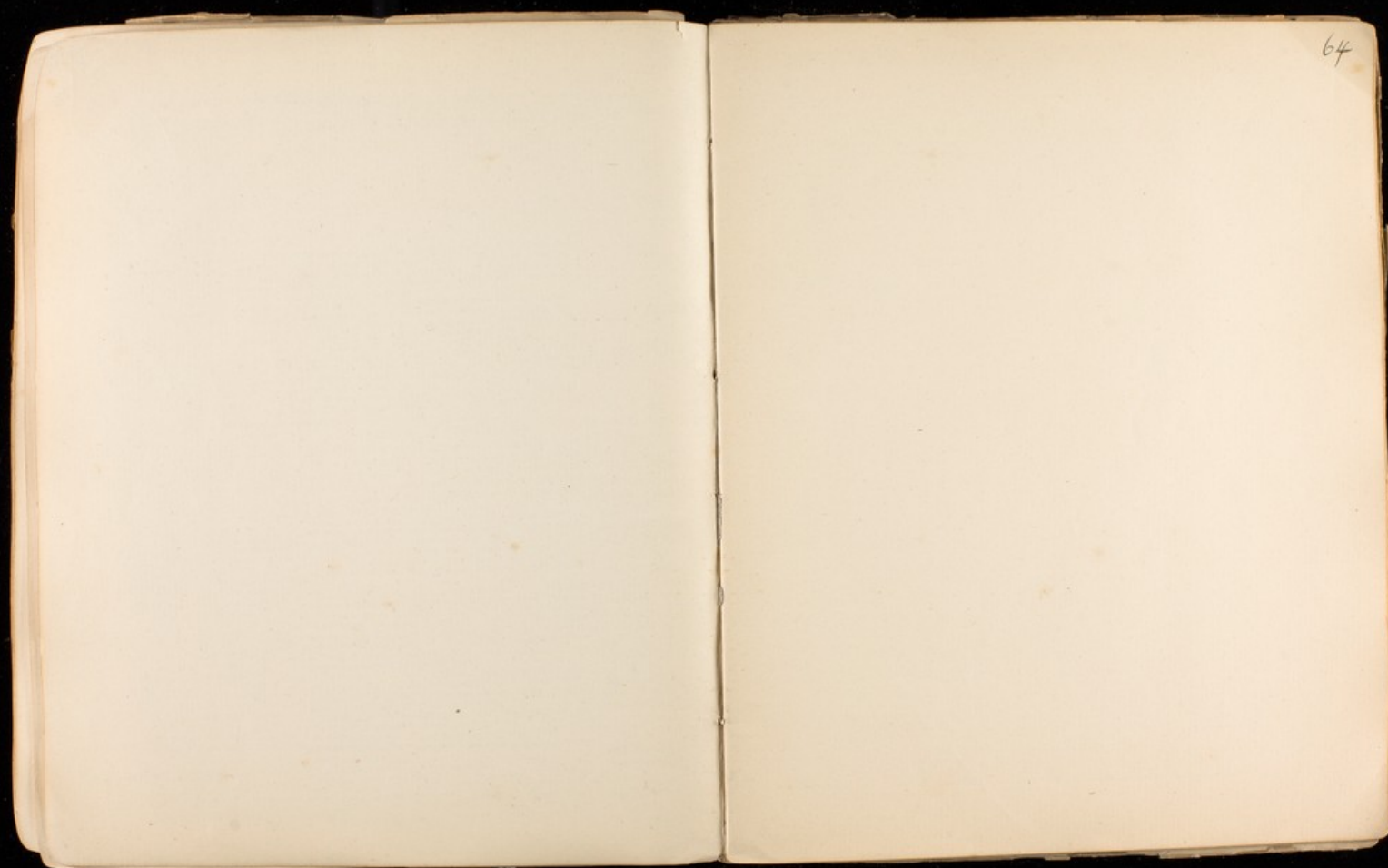
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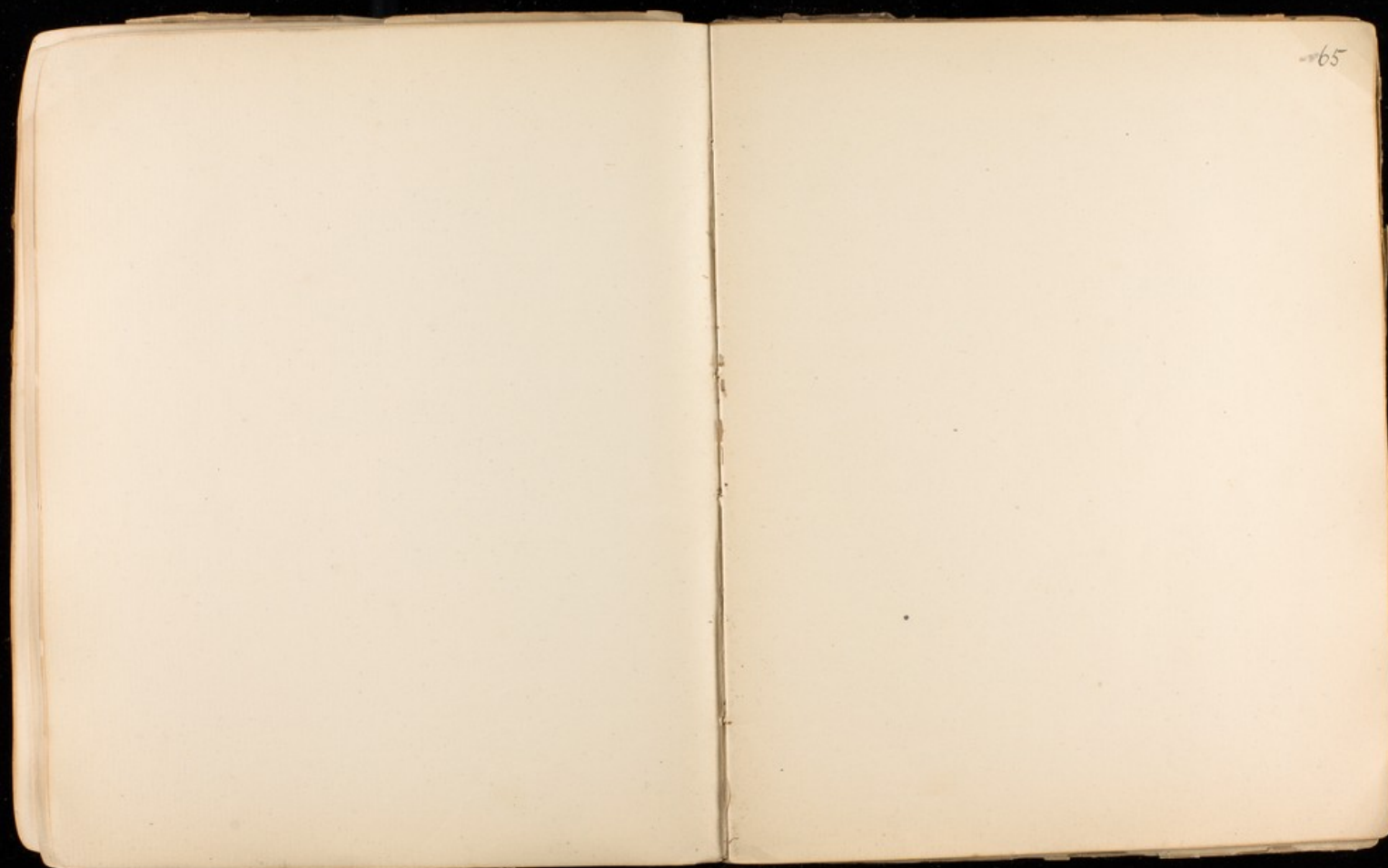
[illegible]

Clean 1870. The inner
 frame is broken
 and you have the
 fragments of many
 bones or small

Can P. 75

no. 245





Surgeons evidently were required to find the necessary medicine out of their pay for we read
"Regulate that the surgeon be ^{truly} paid his wages, and all money due to him for comes, that by the same he may be able to provide all such stuff as to him is needful." From of Ralph Smythe

67.
For 40 years, 1559 to 1603, the unsatisfactory position occupied by army surgeons, largely due to the low classes from which they were recruited, attracted frequent attention. It was then decided to enquire their necessary qualifications and a code of rules was drawn up by which it was directed that
"Surgeons should be men of sobriety; of good conscience, and skilful in that science; able to heal all sores and wounds, especially to take out a pellet of the same." It was laid down that there should be a surgeon to each company & that the Captain of the company should see that his surgeon was in possession of "all oyles, balms, salves, instruments, and necessary stuffe to them belonging" and was to provide for the curage of the same.
It was directed that the Customs of each soldier paying the surgeon a sum of money or pay day to the augmentation of his pay, as in times past he hath been accustomed to" should continue and in consequence of this the surgeon was directed to "readily employ his industry upon the sore & wounded soldiers." *

* See ante p. 46 MS. of R. Smith.

Synopsis.

The Stuart Kings.

Medical arrangements for

The Army in the palatinate 1620. Pay etc. p. 70

A surgeon major to the Camp appointed 1620 p. 70

Extrait from "The Art of War" by Louis of Prussia 165

Gustavus Adolphus & his army. Continental influence on army.

The medical arrangements for the army for Scotland 1639 Pay

Surgeon major for the Army in Ireland 1641

The Civil War, New Model Army, Jamaica or

1659. Army meet arrangements, pay etc. Growth of Army.

Army divided into English, Scotch, and Irish establishments.

Woodall, Walslow, Wiseman, Harvey, Petty

System on. Pay etc.

The money value of a surgeon in 1689. Bogalle.

Provision for disabled soldiers (Cromwell)

1670 Chelsea Hospital and relief for.

Army in Ireland, pay etc. Campaign in Flanders.

The Irish campaign.

General Allowances for officers 1697-8.

Orders by Charles II re allowances to regts for drugs.

1673.

A surgeon suspended under Test Act 1673. (? 1675)

Anne. Supply of drugs to army (2 Anne c. 8)

Marlbrough's campaigns

Civil War. — During the earlier part of the war tents were not used by either party. Soldiers were billeted on the towns and villages, occupied barns and churches, or bivouacked in the open. Leslie's Scottish army seldom or never possessed tents and his troops were also expert in bivouacking. In the English army tents were first used when it sailed across the English Channel to the less populous countries ~~of~~ Scotland and Ireland. This was an innovation of Cromwell's, and was introduced by him in Ireland in order to keep his soldiers in good health. (See Carlyle's Cromwell, Letter cv, cvii). When Cromwell invaded Scotland in 1650 his ^{at first} troops had no tents. First wrote a newspaper (12.8.40) however which shows that, a month later, tents were in use. It says "There is for every file a Tent, for their better quartering in the field, which they have received their morning." (A file was 6 men). First thinks they were small and dividable into parts so that each soldier could carry his share. Monk, ever attentive to the comfort of his men, ^{during his campaigns in Scotland} was always well provided with tents & was careful to keep them in repair. The expedition to the W. Indies had no tents.

The expedition to Flanders started without tents. Morgan, however, supplied the officers with them. One thousand tents were ordered for ^{units 30.11.1667} the men but did not arrive. An Engineer, also complained that there was no timber at Mardyke with which to build huts. His letter (quoted by Firth from the Clarke Papers) goes on to say that this neglect makes the condition of the soldiers ^{very} miserable, & so destructive that we send every day no less than 10, 12, or more to the grave, for we have about 2000 men, and have not accommodation for 600 of them. Lt. Col. Hughes also wrote from Dunkirk that the tents had not arrived "which caused a great sickness amongst us, having not one piece of wood within six miles to build us with." Orrey in his "Art of War", 1667, ~~states of tents~~ says "now that for the most part war is made in the besieging of strong places or in standing camps, both soldiers and officers use to huddle, which is more warm and more lasting than tents."

Tents

69
A Commissioner General Copley got into trouble for illegally disposing of government horses, amongst others "one flea-bitten nag to Mr. de la Chirurgeon."

~~Palatinate~~ (Harl. mas m 5109 quarter by
James 1. d. 25 Oct see Just vol 1 p. 380
also see Gene

In 1624, Count Mansfeld raised 12,000 men in England
for service in the Palatinate. They were hastily
embarked in crowded ships, lost half their
number from sickness and failed to be of any service.

James's.

70

In the estimate for the army of 25,000 foot, 5,000
horse and 20 pieces of artillery which it was proposed
to send to the Palatinate in 1620 a liberal
medicine staff was provided for but no allowance
for medicines or hospitals is noted.

It was proposed that there should be —

" In the general's baggage 2 physicians, at 6/8 per diem
each, two apothecaries at 3/4, and two surgeons at
6/8 each.

Every regiment of infantry consisted of 12 companies
of 150 men each, and had one chief surgeon at 4/- per diem
and one for each company at 1/- per diem.

One chief surgeon at 4/- per diem was appointed
among the general officers of horse, probably to represent
the surgeons of the army.

To every troop, consisting of 100 men, one surgeon at
2/6 a day.

To the ordnance & pioneers a barber surgeon at 2/- a day
and two under barber surgeons at 6 d. a day each.

1620. A surgeon-major to the Camp was appointed
with pay at the rate of 5/- a day & two mates
under him at 4/- per day each.

Charles I.

1625. 80 English ships & 16,000 soldiers make an abortive attack on Cadiz. Want of provisions & an outbreak of plague led to the abandonment of the expedition after a fort had been stormed at Cadiz.
1627. Richelieu besieges the Huguenots in La Rochelle. Buckingham leads with an English force on the Isle de Rhé and is repulsed. The soldiers & sailors for this expedition were raised chiefly by impressment.
1628. A second expedition was fitted & about to leave Portsmouth when Buckingham was assassinated & La Rochelle soon afterwards fell.

Charles I.

71

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Major
in U.S. Gazette
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1. What are the main metallic impurities in drinking water? describe methods of introduction & tests for their detection.
2. Composition of ordinary ^{cryst.} gas used in lighting rooms? What impurities does it add to the air. Discuss ventilation of rooms lighted by coal gas.
3. General structure of ^{large} ^{cells} of bacteria. Explain relation to division.
4. What are
 A. Anaerobic culture
 B. Plate culture.
5. What is weight of aqueous vapor in 1 c. foot of air saturated at 50° F.
 Max. Pres. at 50° F = 9.16 mm.
 Density of aqueous vapor compared with air = .622

71
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1. What are the main metallic impurities in Drinking Water? Describe methods of identification & tests for their detection.
2. Composition of ordinary ^{gas} as used in lighting rooms? What impurities does it add to the air. Discuss ventilation of rooms lighted by coal gas.
3. General structure of ^{large} ^{cells} of bacteria. Explain relation to division.
4. What are
A. *Anaerobius culture*
B. *Plants culture*.
5. What is weight of aqueous vapour in 1 c. foot of air saturated at 50° F.

Max. Pres. at 50° F = 9.16 mm.
the vapour

Density of aqueous vapour as compared with air = .622

Charles I.

71

A book appeared in 1643 at the outbreak of the Civil War with a long title and a large dedication. From the latter we gather the writer S. Markham was a Royalist. This book chiefly may be called "The Soldiers Exercise in three books". & was a manual ~~of the~~ ^{of} drill, discipline &c. It describes the various officers in a regiment and tells us the lowest in rank was known as the Lammaspounder. We also ~~learn~~ ^{read} that "next to the drum" was ranked the Clarke of the Band, who "ought to be learned in all Marshall dances" and that "next to this officer I range the Chingon who likewise is no Soldier but holdeth the dignity of his place from civility and good manners." As for his range in general it is according to his desert and fine demeanour; but in particular (and among his fellow chingons) the Chingon Major hath the first range.

(See Review of book in U.S. ^{Magazine} ~~Journal~~ July, 1900).

I think the book is also quoted in ^{Grave}.

Soldiers were injured for the Army for Scotland.

Pay to Officers General of Horse 4/-

~~every~~ Civil War.

Pay, a Captain 8/-, a Lieut. 5/-, a Cornet 4/-, 3 Corporals 2/- each per day, 2 Trumpeters, one Drummer, a Surgeon, & 80 horsemen at 2/6 a day each. (The last item probably also includes allowance for upkeep of Troop horses)

Charles I.

In the Art of War, by the Lord of Prussia.

Englished by I.C. (Crus) Cambridge 1639.
we read under the head of "Barber Chirurgien."

"In every company there must be a chirurgien, to trim the soldiers, to attend them which are sick, to dress the wounds of such as are hurt (being as an assistant to the chirurgien of the regiment), having proper remedies to stanch the blood, to hinder inflammations, and to assuage the pain."

From this it would appear that there were two sorts of surgeons in a regiment at this time, the company surgeons being under the regimental surgeon. (See p. 10)

In Charles I's army for Scotland, in 1639, there are "two Chaplains at 60. 8 d. each and two Physicians at ditto."

In this army (of 1639) each regiment consisted of 1500 men. Each Troop consisted of a Captain, Lieutenant, Cornet, 3 Corporals, 2 Trumpeters, one Quartermaster, a chirurgien, and 80 horsemen.

(Reshewed from p. 10)

In the Lord General's train were two Physicians at 6/8 each two Chirurgiens at 4/- each and two Apothecaries at 2/4 each

(5) Chirurgiens at 4/- a day each were also provided for the Train of Artillery, one of these ~~gentlemen~~ was allowed a servant at 1/- a day

one R.

See ante John Woodell who lived also in Charles' I reign

See
Lynner's
"Wiceman" +
O.D. of Rufford.

Wiceman.

In his "Right Chirurgical Treatise" one of ab. was devoted to gunshot wds. He refers to the great controversies amongst the learned, about fire & venom in such wounds & observes
"in these our later times, although they do not call them venemous, yet is it a difficult thing to disengage many of our churgeons from dressing these wounds with the tincture of myrror, and honey of roses and the thrusting in of great tents."

"in heat of fight, whether it be at sea or land, the churgeon ought to consider, at the first dressing, what possibility there is of preserving the wounded member; and, accordingly, if there be hopes of saving it, to make his amputation at that instant, while the patient is free from fever."

During the 17th Century Army surgery appears to have languished for we find only one name of any prominence amongst Army Surgeons namely that of Richard Wiceman. He served successfully in the Armies of James I & Charles II & was taken prisoner at Worcester. He also served in the Navy in the war against the Dutch in 1665-1674 which he was severely wounded. In his works he he first advocated forming amputation after wounds. He also referred to "Joints ulcers" a gangrene.

As a reward for his services he was appointed Sergeant-Chirurgion to Charles II.

He enjoyed a great reputation in the treatment of gunshot wounds. Here is one of his prescriptions

"Boyle in 2 pounds of oil of lilies, two new-whelped sucking ~~lambs~~ till the flesh fall off their bones; add some earthworms in wine, then strain & to the strained liquor add two drachms of turpentine and an ounce of Spirit of wine."

In dysphasia he gave mercury until profuse salivation was produced

Wiceman introduced the treatment of Anomolism by compression gave an account description of foreign articulation and improved the operation for hernia.

* This prescription cannot have been Wiceman for it is quoted by an unknown surgeon in 1536 (See first)

At this time the Continental armies ~~were the~~ were the fields to which numerous English, Scots, & Irish swarmed to obtain training in the art of war. The Scots Brigade in Gustavus Adolphus' army recruited from Scotland was the source from which ^{many of} the veterans of Louis' army were afterwards obtained. ~~and~~ The Swedish school left its mark on the British Army. Gustavus was the first to establish a sound medical organization for his army. We learn that each battalion of infantry 1000 men strong had from surgeons belonging to it. This was at the time regarded as a complete novelty. Previous to this the provision of medical aid was entirely in the Captain's hands and it was only too often completely neglected. It may not be out of place to state here that this Scots brigade afterwards went to France, where it was joined by some officers of the British Guard, & became the Regiment d'Helion. Later it became part of the British Army and is now represented by the Royal Scots. The English adventures sought service with William of Nassau, with France, and once with Gustavus. The Dutch sought service in France.

* Mackay in his Old Scots Brigade gives the warrant by which on 17 June 1629 Gustavus Adolphus authorized Lord Reay to raise a regiment of Highlanders for his service. The warrant gives the constitution of the regiment and the pay of the officers & men. From it we learn

that there were from officers to the regiment and their 74 pay was 20 Swedish Rix Dollars a month with an extra allowance of 12 Rix Dollars a month. * From the list we gather that the regiment ranked with what may be called the administrative staff of the regiment & its provision as regards pay was the same as that of the Provosts, a little lower than the Chaplain, and ~~higher than~~ lower than the serjeants of the regiment. In case of disabilities from wounds Gustavus agreed to provide a temporary home for officers or soldiers in Sweden, or should they prefer to go elsewhere a month's pay in lieu thereof.

Gustavus Adolphus's Scots Brigade included a Welsh company.

I have made this digression because the Continent was during the early Stuart period the school for soldiers and on the outbreak of Civil War in England we find that many veterans held important commands on each side and the organization of the English ^{army} ~~armies~~ in the field was without doubt influenced by foreign models. It does not stretch the imagination to suppose that the medical arrangements were also influenced by the same ideas.

* According to Mackay "an Old Scots Brigade" 32 R. dollars a month would be equivalent to £28 in modern English money.

When the remains of the Sixth Brigade of Gustave Adolphe's army became the Regiment d'Hebron in the French Service we find that it consisted of 8,316 officers + men and included 4 surgeons.

In 1649, Cromwell landed in Ireland with 16,000 horse & foot, ^{the same} stones trophada ^{putting} 2,000 men to the sword and specially captured ^{Wexford} a Dingle, Cork & Kinale.

In 1650 Cromwell invaded Scotland & was about to retire
only to his severe losses from sickness when he met at the Battle of Dunbar and afterwards took Edinburgh.
He carried on the war, took Stirling & Dundee & E. (Glasgow just after the war).
reduced the country to submission.
Battle of Worcester.

1653. Ständig umg. frische Thierg. 30,000 neu.

Notwithstanding the improvements in organization
of M.O.s of the Army
& Army made in the early part of James's reign we
find that some difficulty was experienced in inducing
m. men to take service in the Army & when the
great Irish Rebellion of 1641 broke out it was
sooner enacted that the Justice & James "raise
as many men by impress for soldiers, gunners,
and chirurgeons as might be approved by his
Majesty and both Houses of Parliament." May
of these men levied for service in Ireland were ~~at last~~ ultimately
employed in the Parliamentary forces employed in England.
The details of the medical arrangements
of Cromwell's Army are available. See p. 77

In 1655 Ingham & Company were
 & abolished & is now done by Royal Warrant
 in January 1686 that the pay of a chieftain of
 a foot regiment should be 4/- a day & of his mate 2/6.

Movements of troops, Sieges & the
operations of war have attracted during the Civil War
by some outbreaks of typhus & other epidemic diseases.
(Creighton)

* Royal Commission Report 1858

Parliamentary Army.

According to a pamphlet in Barriff's Military Discipline (quoted by Fortescue) there were on ~~attached~~ to the staff of the Officer General of the Train. A General's physician pay 6/8

1 Army Physician	pay	6/8
1 Apothecary	pay	10/-
1 Surgeon	pay	4/-
2 Mates	and pay	2/6

And on the staff of the Horse Officer of the Field

1 Surgeon	pay	4/-
2 Mates	pay	2/6

Headquarters Staff, Expedition to Flanders 1657

One Apothecary pay 4/4.

(Value of money at this period was about 5 or 6 times as much as it is now.)

(Calc. S.P. Dr. May 1657)

General Monk was very anxious to have well qualified men employed as Army Surgeons & Physicians. He did not consider the pay given ^{to} the sufficient and therefore in some cases showed ~~by~~ his surgeons as private soldiers as well as as surgeons. In this way the surgeon obtained a private's pay in addition to his own.

In his capacity of physician to the King, Harvey was at Rodehill upon Sunday, 23 Oct. 1642. We read that during the battle "a little aside, under a hedge, might be seen an elderly man reading a book. This was Harvey and beside him were two boys, of whom he had charge. The elder was afterwards Charles II, the younger James II. After the battle he accompanied the King to Oxford. Four years later in 1646 he quitted the service of the King. *

Dr. Sydenham probably served in the Parliamentary Army during the Civil War. It is certain that his brother took a prominent part in the war, one as a Colonel the other as a Major. *

Thomas Sydenham (1624-1689) a Fellow Commoner of Magdalen Hall, Oxford, he left the university when the Civil War broke out & joined the Parliamentary Forces. He obtained a commission as a Capt. of Horse, ¹⁶⁴² in his native County (Dorset). He appears to have been in Exeter when it was captured by the Royalists in Sept. 1643 and was a prisoner for 9 or 10 months. In July 1644 Col. & Major Sydenham repulsed an attack on Dorchester from Wexham, with their forces, with great success and in this fight Captain Sydenham behaved himself very bravely. His military service ceased in 1645.

* Russell history of the art of medicine.

after the reduction of the royalist garrison in Osnest
by Fairfax & Cromwell. He returned to Oxford where he
took his degree in Medicine & became Fellow of All Souls.
In 1651 he appears to have been Capt. of a troop of
horse in Col. Rich's regiment, part of a body of 2000
horse raised from the militia for special service.
His regiment was stationed near Leicester during Cromwell's
absence in Scotland & afterwards moved towards the
border. When Charles II & the Scottish Army entered
England his regiment followed the enemy's movement
& fought some sharp engagements in Lancashire.
Whether here or at Worcester Dydenham may have
seen hard fighting and it was possibly on one of
those occasions that he was 'left in the field among
the dead' (Andrew Bourn) & suffered the loss of blood he
afterwards refers to. In 1654 he received £600
on Cromwell's recommendation as recompense for the
death of his two brothers John & Francis who had
been killed in the war. This was the result of a
petition to Cromwell in which he also refers to his
own services & loss of much blood, by which he was
much disabled.

(Dietrich's Medicine Biography)

Grime & Cheneas wrote from the London Gazette of 76
1689 an advertisement which gives us a picture of
the Army Surgeon of the period with his money value.

"Run away, one of Captain Soames' Company, in his
brave the Duke of Norfolk's Regiment of Infantry, *
Roger Curtis, a Barber-surgeon; a little man, with
short, black hair, a little curled; round visage, fresh-
coloured; in a light-coloured cloth coat, with gold
and silver buttons, and the loops stitched up with
gold & silver; red plush breeches, and white hat."

"Whoever will give notice to Francis Baker, the agent
of the same regiment, in Stuttons Gardens, so that he may
be secured, shall have two guineas reward!"

* afterwards 22^d Foot.

When the New Model Army was established in 1645 two physicians and an apothecary were appointed to the Headquarters Staff of the Army. The physicians to the Army were Dr ~~Stanhope~~ Payne and Strawhill the apothecary to the Army was Master Wells. There was also a surgeon general (Fairs). A point which may be noted in the list is that ~~some~~ of the appointments on the Staff in connection with the Army, as the Military Secretary himself were civilians and in each case this is noted. The Army Physicians were evidently regarded as soldiers who served as there is no note (initials) after their names. The same remark applies to the Commissariat.

(Fortescue)

The first great military expedition of the English to the tropics took place in 1654-1656. It was directed against the Spanish possessions in the West Indies. Jamaica was taken after an expedition to Cuba ^{had} met with disaster. The troops had not been ~~provided with~~ water bottles. ⁺

+ water bottles were not issued to light troops until 1711. Confusion.

humid jungles, poisoned by water from a copper mine, soaked by tropical rain, without shelter or proper equipment it is not surprising that hundreds fell victims to dysentery. Then to crown all they fell into a Spanish ambush, in which many fell, but rallying, the Spaniards were beaten off & the troops returned to their ships. In Jamaica the ravages of yellow fever were terrible, 20 men dying daily, & yet the weakened battalion continued to beat off with brilliant success an Spanish attempt to recapture the island.

(Fortescue.)

Parliamentary Army. - In addition to the medical officers on the staff of the parliamentary armies in

Frontiers Dr. Wells

and directed the Army, each surgeon and apothecary ~~the~~ Dr St. John and person ^{year} to the train

and Scotland surgeon general, ^{with} which ^{nature}.

lost and he ^{was} in his ^{general} (West Army)

Dr John ¹⁶⁷⁸ a day. ^{chirurgian} - ^{one} ^{chirurgian}

Page 41-42

Thomas Traherne.

When the New Model Army was established in 1645 two physicians and an apothecary were appointed to the Headquarters Staff of the Army. The physicians to the Army were Dr ~~Sturges~~ Payne and Strawhill. The apothecary to the Army was Master Webb. There was also a surgeon general (Farr). A point which may be noted in the lists is that ~~some~~ of the appointments on the Staff in connection with the Army, and the Military Surge himself were civilians and in each case this is noted. The Army Physicians were evidently regarded as soldiers when on duty as there is no note (initials) after their names. The same remark applies to the Commissariat.

(Fortescue)

The first great military expedition of the English to the tropics took place in 1654-1656. It was directed against the Spanish possessions in the West Indies. Jamaica was taken ^{by} an expedition to Cuba, met with disaster. The troops had not been ~~provided with~~ ^{supplied} water bottles. ⁺ In prime jungle, provided by water from a copper mine, soaked by tropical rain, without shelter or proper equipment it is not surprising that hundreds fell victims to dysentery and fever. To crown all they fell into a Spanish ambush, in which many fell, but rallying, the Spaniards were beaten off & the troops returned to their ships. In Jamaica the ravage of yellow fever were terrible, 20 men dying daily, yet the weakened battalion continued to beat off with brilliant success a Spanish attempt to recapture the island.

(Fortescue.)

Parliamentary Army. — In addition to the medical

Stewart Cholmon. — Re.
1815

James Innes S. 15.11.49. S.S. 15 Mar 1771.
d. 1794.

Dodo Ecken S.M. 1.2.1760 S. 4.4.83
d. W. 22.4.92

Gustavus Innes, Esq. 25.2.1772, S. 4.6.83

A. S. 1.1.1806 S. 3.27.XII.1809
ret. f.p. 1.2.1822, d. W. 21. Apr. 1822

medical armies in
and directed
whole army, each
surgeon and
greatly appreciated
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train and person
organ to the train

and Scotland
surgeon general,
private which
nature.

ghost and he
in his
in general
Scotland Army
Innes's Army

at St. John
settling 16/8 a day.
"Chirurgon"

and then, "one

also a "chirurgon"
Thomas Trevelyan.

James Innes.
General to the Officers of horse, Thomas Trevelyan.

+
Water
bottles
were
not
issued
to
English
troops
until
William III
Company

but I think we may fairly ask that a few of us shall not be unjustly handicapped by the fact that we have been unable to obtain the furlough necessary to qualify, and shall be unable to do so for a long time to come.—I am, etc.,

July 21st.

CAPT. I.M.S.

COMPULSORY MEDICAL SERVICE IN THE PAST.

SIR,—At the present time, when there is likely to be a scarcity of surgeons for military service, it is interesting to note what has been done in the past to meet military and naval exigencies.

I think there can be no doubt that, from time immemorial in this country, the State has exercised the right of enforcing service on any of its subjects, when the voluntary supply was insufficient for national needs. Old records give fairly numerous instances of compulsory medical service in ancient times. We find that in 1560 the following Order under the Great Seal was served on the Company of Barber Surgeons by Queen Elizabeth:

We lett you wete that for certeyne consideracions us movinge we have by these presents auctorised & lycensed our Trustie and Wellbelovyd Servaunte Thomas Vicary Sergeant of our Surgions & the Wardens of the Fellowship of the said Surgions within our Cytie of London that now be or hereafter shalbe, that they by themselves or their assigne bearer hereof shal & may from henceforth take & retyene at our wages as well within the Cytie of London as elsewhere within any other Cytie Towne Borough or other place within this our Realme as well franchised and privileged as not franchised nor privileged suche and as many Surgions as they shall thinke mete and able from time to time to doe unto us servyce in the scyence of Surgerie at any season hereafter as well by sea as lande and further that the Sergeant and Wardens aforesaid shal or maye take of such as be not able to serve such instruments and other stuff of Surgerie as they thinke mete to serve agreeinge and payinge therefor to all suche of whom any suche instruments or stuff shall be taken. Wherefore we wold and commaunde you & every of you that unto our saide Sergeant and the Wardens aforesaid and their assigne bearer hereof in the due execution of this our auctoritie and lycence ye be aidinge helpinge and assistinge as oft as the case shall require without any your denyall lett or contradycon as ye and every of you tender our pleasure and wold avoide the contrary at your peril. In witness whereof We have caused thes our Lettres of Commaundon to be sealed with our Great Seal. Witness ourself at Westmynstre the day of Decembre the seconde yere of our Reigne.

It is to be noted that in this year there was no particular national crisis. War was threatened with Spain, but the period of the Armada was thirty years later. Again the Order for impressment was general, and might have been enforced at any time.

Passing on to December 7th, 1598, we read in the Annals of the Barber Surgeons of London:

This day commaundment came from the lordes of her majesty's most honourable privy counsell for to press a Surgeon for her majesty's service in Ireland under the conduct of Captayne Winsor.

On December 12th John Cumberland was pressed, and four or five other surgeons were also pressed and handed over *volens volens*.

As might be expected, abuses arose under summary methods of this character. One of these surgeons, Dominick Lomaline, is recorded on January 16th following, as having voluntarily confessed before the Masters, "that to be discharged of his presse for Ireland, it stood him in Twenty Nobles, of which the Captayne (Winsor) had in moneye three pounds."

The provision of deputies was not always good for the patient, for under date February 6th, 1599, it is recorded that:

One Richard Hallydaie, mariner, made his complainte of Raphe Rowley for setting forth an insufficient man not approved to serve as a surgeon at sea in the Shpeepe called the Costely of London by whose unskylfulnes hee was dismembred of his arme and is in greute danger of life.

Ralf Rowley had been pressed for a surgeon and had sent an unqualified deputy.

Again, in the time of Charles I, when the war broke out with Scotland (1633-39), a large army being collected in the north, the Barber Surgeons of London were directed to "press and forward 25 surgeons to Newcastle." In the Annals of the Company appears the following minute:

20th April, 1639.—Upon reading the warrant sent to this house from Yorke signed by the Lord General concerning the want

of Surgians in the Armye it is concluded by the Governor and Assistants here presente that Mr. Warden Dunn and Mr. Colles shall goe on, & goe aboarde some Newcastle shipp and agree with a shipper for ye conveyance of ye Surgians & their Chests & provisions & their mates, & likewise give them conduct money, & that for the present that charge to be borne out of the stock of this house until it can be reobteyned from Thresurer of ye Armye.

The cost to the Company was £44 14s., but of this only £23 were subsequently repaid by the Government; so that the profession, as represented by the Barber Surgeons, not only found the men, but also paid a portion of the cost.

In the receipt given for the expenses, the name of Mr. Sergeant Clowes appears. He received £17 10s., but probably had to share some of it with the other surgeons. This was Wm. Clowes, jun., the son of Wm. Clowes, Surgeon to Queen Elizabeth and James I, who accompanied Sir Philip Sidney in the English expedition to Flanders. He was Sergeant Surgeon to Charles I, and did military service during the parliamentary wars.

The above extracts from the Annals of the Barber Surgeons of London will, I think, throw sidelights on the way in which our services were once requisitioned by the State, and history may repeat itself. In the present war the Government has approached the British Medical Association to assist it in getting a voluntary medical service. This is more in accordance with the present principles of democracy, and if voluntary methods suffice, there may be no necessity to follow the example of our forefathers. If, however, a voluntary system prove inadequate, some form of compulsion will become necessary. In that case, it should be clearly understood that compulsion, if unpleasant, is by no means a novelty; that we are only repeating a procedure that has been frequently adopted in the past history of our country.—I am, etc.,

London, N.E., Aug. 11th.

MAJOR GREENWOOD.

IS URINARY CALCULUS RARE IN IRELAND?

SIR,—There seems to be a general opinion that urinary calculus is rare in Ireland. This opinion would seem to be borne out by statistics given in a paper recently read before the Royal Academy of Medicine in Ireland by its President, Dr. Walter Smith, physician to Sir Patrick Dun's Hospital, a reprint of which has been sent to me by the author. Dr. Smith quotes the following physicians and surgeons:

Sir Thomas Myles (Dublin), who states that his experience confirms the view of the late Robert McDonnell, that calculus is rare in Ireland compared to England; Mr. Gunn (Dublin), who, having looked over his cases for some years, finds 19 patients suffering from urinary calculus; Mr. William Taylor (Dublin), who supplies an elaborate table of the results of his practice since 1900 (his total number of cases is 25); Sir William Whitla (Belfast), who sees only a very odd case of calculus; Mr. Mitchell (Belfast), who has met with about 15 cases in the last fifteen years; Professor Sinclair (Belfast), who has not during the last twenty years operated more than thirty-six times for stone; Professor Pearson (Cork), who finds that urinary calculus is very rare in the South of Ireland (he has had 15 cases in fifteen years); and Dr. MacDowel (Sligo), who reports 3 cases in twenty years. Dr. Smith applied to me for statistics from my practice, and I sent him a list of 82 cases, 41 of which were vesical and 41 renal. Unfortunately, Dr. Smith mislaid my memorandum, and the cases were consequently not referred to in his paper. The comparatively large number of 82, to which I have added several since, would indicate that, at any rate in the North of Ireland, calculus is not so rare as Dr. Smith's paper would lead one to suppose. I hope at a future date to publish a short article on my cases, giving, so far as I know, the district in which the patient has been domiciled, and the chemical composition of the stone. These cases have been collected for a period of about ten years, and form about 8 per cent. of something approaching 1,000 cystoscopies in hospital and private practice.—I am, etc.,

ANDREW FULLERTON, M.Ch., F.R.C.S.Irel.
Belfast, July 10th.

DREAD OF INFECTION FROM PULMONARY TUBERCULOSIS.

SIR,—My daughter has the misfortune to be suffering from pulmonary tuberculosis, and is being treated at

home, but I find it increasingly difficult to keep my servants, such as their unreasoning dread of this disease. It is not as if they were asked to nurse her, or, indeed, do more than convey her meals to her, but, thanks to the campaign against tuberculosis and the proposal to make it a notifiable disease, they have become imbued with a belief in its infectiousness. It is high time we went astern a bit lest the outcome of our efforts to educate the public should be to convert the unhappy victims of consumption into pariahs, and to deprive them of the care and sympathy to which they are entitled, which, moreover, they received until we recklessly disseminated what I am fain to regard as exaggerated views of the risks entailed by the presence of a consumptive person in the family circle.

It is generally agreed that by the adoption of a few simple, common-sense precautions all danger of infection virtually disappears, and this is a point—an all-important point—which the public do not grasp.—I am, etc.,

A MEDICAL FATHER.

THE CAUSE OF HARE-LIP, CLEFT PALATE, CRETINISM, Etc.

SIR,—At the annual meeting of the British Medical Association in Cardiff in July, 1896, I gave a lantern demonstration of cretinism, in which I suggested that the sporadic form, due to lack of development of the thyroid body, was analogous to any other embryological stunting, such as absence or dwarfing of uterus, ovaries, or testicles, acardia, acephalia, anencephalia, hare-lip, cleft palate, spina bifida, etc.

In Bartlett's *Wild Animals in Captivity* it is stated that lions, fed on the flesh only of large animals, instead of on a larger proportion of the body of smaller animals (with small bones, skin, intestine, blood, and all), rarely have completely developed offspring, the most frequent and almost constant imperfection showing itself in the form of defective palate, and that the certainty of this has been fully established by observations made on animals bred in captivity.

It might be worth while in the case of any infant showing any of the above or other signs of incomplete development, to make inquiries as to any nutritive defects of its parents.—I am, etc.,

Kendal, Aug. 11th.

WM. R. PARKER, M.D.

DIAGNOSIS OF GOUT.

SIR,—Dr. W. J. Middleton's reply to Dr. Berkart is interesting in two respects—first, in his remark that gout is due to a specific micro-organism, and, secondly, in his apparent opposition to Dr. Berkart's derision of counter irritation in the treatment of this supposed trouble. It seems remarkable that anyone believing in the micro-organism theory should suggest treatment by counter irritation in a disease where there would be reasons to believe that such procedure would be as futile and harmful as in phthisis or any other disease of micro-organic origin. The only rational treatment would be the injection of a specific antitoxin when the particular organism has been discovered. But since sufferers from gout have been for ages past bringing on their own trouble by errors in diet and getting better by their correction, the discovery of such organism seems neither likely nor necessary.

A patient of mine, usually in vigorous and robust health, can bring on an attack of gout by drinking a few glasses of champagne; and the effects of rich foods, strong ale, porter, and port wine are too well known to need comment. But I have never yet heard of any one inducing an attack by drinking gin. Gin contains juniper, and juniper clears the kidneys, and hence there is little possibility of an accumulation or deposit of urates, which Dr. Middleton seems to think Dr. Berkart relies upon for a correct diagnosis.

I am of opinion that if any medical man who is a sufferer from gout will go to the trouble to study the specific gravities of his urine he will find that for a day or two before an attack, or in some cases for a week or two, his urine will fall in specific gravity—that is, a urine which, in the ordinary health of one who is a free eater, varies between a specific gravity of 1030 to 1015, will fall much below the latter figure, reaching specific gravities sometimes so low as 1003 or 1002, and for some hours may even equal that of pure water. But metabolism is going on and the uneliminated products of katabolism or tissue waste are

steadily accumulating in the blood. The patient sooner or later is ripe for his attack and is struck down in the agonies of gout. But at the same time, or before long, the kidneys, in spite of their previous sluggishness, now take on activity as unaccountable as it is vigorous, the result being a copious deposit of urea, uric acid, and its associates. This clears the system and in a typical case the patient usually recovers. But in the pathological picture which Dr. Berkart draws such recovery would be impossible. That the theory of "perforative synovitis" is inadequate to explain the symptoms of many cases which have hitherto been attributed to the deposition of uric acid or sodium bicarbonate is plainly shown by Dr. Berkart's own statement, in which he points out that "this cystoid degeneration" . . . "may, however, become gouty if from a concomitant disease of the kidneys uric acid is retained and accumulates in the blood," which is no more than to say that gout after all is due to a deposition of uric acid; and yet in the opening lines of his article he repudiates the supposition of such deposition in the majority of cases as misleading and mischievous, and states that uric acid could act neither as a mechanical irritant nor as a toxic agent without leaving invariably indelible changes in the articular cartilage; concluding the paragraph with the statement that in "numerous instances"—diagnosed as gout—"the articular cartilage appears on post-mortem examination to be perfectly normal"—showing plainly that whatever the nature of the trouble, it could not have been due to cystoid degeneration which must necessarily be a permanent pathological change. It is, however, difficult to understand why uric acid, especially when merely acting as a toxic agent, should not undergo absorption leaving as little evidence of its injury upon the articular cartilage when there has been no actual degeneration as that certain skin troubles will frequently disappear, without leaving the slightest evidence of their ever having been present.

Dr. Berkart therefore adequately explains an articular disease due to cystoid degeneration with a superadded gout, but leaves us completely in the dark as to the nature of those "numerous cases diagnosed as gout," but showing no structural alteration in the joints.—I am, etc.,

Liverpool, Aug. 8th.

WILLIAM BRAMWELL.

ON THE CURVE OF THE EPIDEMIC.

SIR,—I thank Mr. Trachtenberg for his letter of July 22nd. The separation of the two parts of the logarithmic expression was of course a slip, and he is quite right in pointing out that the substitution that I made was illegitimate and does not lead to an identical solution. I hastily overlooked the fact that we were not provided with the functional relation between y and t . On May 8th Dr. Brownlee gave us three suggestions, but no indication of what kind of function he intended this y to be. Under the circumstance it does not appear to be possible to integrate the equation, or to form any but the vaguest idea of its meaning.—I am, etc.,

Newcastle-on-Tyne, Aug. 10th.

A. S. PERCIVAL.

THE STERILIZATION OF THE SKIN WITH TINCTURE OF IODINE.

SIR,—If Surgeon-Major Porter will read my original paper, which appeared in the *BRITISH MEDICAL JOURNAL* of August 14th, 1909, he will find that I referred to the work of Professor Grossich. I also referred to his paper which was published in the *JOURNAL* of February 6th, 1909, and to a contribution by Mr. Goodwin the following week.

They had all used a 10 per cent. solution of iodine, which is known in this country as liq. iodi fort. or liq. iodi. Prior to my communication no one had ever suggested using tinct. iodi, B.P.

If Surgeon-Major Porter "quickly discovered that the 10 per cent. solution was not necessary and was sometimes injurious," he did not impart this knowledge to us, nor did he suggest an alternative method. I have never claimed to be the originator of the liq. iodi fort. method. I was the first to use and to advocate the tinct. iodi, B.P., and this is the solution which is now universally used.—I am, etc.,

J. LIONEL STREETTON,

Kidderminster,
Aug. 9th.

Senior Surgeon, Kidderminster Infirmary and
Children's Hospital.

When the new model was

two physicians
to the army

the apothecary
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success in Spanish attempt to recapture the island.
(Fortunate.)

1849 printed by the Royal Academy of Medicine in Ireland in Dublin
read & printed in the year 1849
In witness whereof We have caused these our Letters of
Commission to be sealed with our Great Seal. Witness ourself
at Westminster the day of December the second year of our
Reign.

that in this year there was no particular
St. John, but the



+
Walter
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have
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Littles

Parliamentary Army. - In addition to the medical
officers on the staff of the parliamentary armies in
the field who supervised controlled and directed
the medical arrangements of the whole army, each
regiment was provided with a surgeon and
his mates. These mates ^{were} frequently apprentices
to the surgeon. In Bosc's Army, ~~the~~ Dr. St. John
was appointed "physician to the train and person"
whilst Lawrence Lowe was "surgeon to the train
and person."

Each of the armies in Ireland and Scotland
had its own physician general, surgeon general,
and apothecary general, an arrangement which
existed long after the Restoration.

The Physician General ranked highest and he
was usually a man of some eminence in his
profession. Monmouth's physician general
was Dr. Henry Shrover, Monk's (Scottish Army)

was Dr. Samuel Barrow, and Cromwell's Army
in Ireland had as Physician General Dr. John
Waterhouse. ^{next came the apothecary general to the army who ranked 6th in order.} Cromwell also had a "chirurgian -

general to his excellency's person and train," one
James Winter. There was also a "chirurgian
- general to the officers of horse," Thomas Traffham.

Page
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$\left\{ \begin{array}{l} - \\ + \end{array} \right.$

The pay of the surgeons and the number of mates varied during the war, thus in 1651 the surgeons pay (which was formerly 4/- a day) rose to 6/- a day ^{but} from years later ^{the} surgeons' pay was fixed at 5/- a day and one of his mates was taken away from him. In 1657 the surgeons' pay was again reduced to 4/- a day. The pay was evidently regarded as too small to ~~attract~~ induce able men to serve in the army for we find few names of army medical men in the Roll of the College of Physicians and it is on record that many were notoriously incompetent. In the Thirde Paper is a petition from an Army Surgeon, ^{a certain} ~~as~~ ^{Edward} ~~James~~ Cooke, asking to be retained in the Army stating that although "one Death, who does and will prevail" had carried off many of his patients it was not due to his ~~the~~ surgeons' cost of cure but to the ~~hand~~ ^{wrath} of God of heaven. ~~who~~ He presents a ~~petition~~ ^{affair} statement from some of his patients who had survived in support of his petition. In 1654 General Monk strongly remonstrated with ~~Cromwell~~ ^{against the} for appointment of a N^o 1st Field

... of his head ... from which a piece
 of bone the size of a ^{half} crown piece had to be
 removed. When any distinguished officer
 became seriously ill or he was dangerously
 wounded we find ~~that~~ the Council of State
 sending the leaders of the profession from
 London to attend. Thus Dr Wright and
 Bates were sent to ^{he} ~~Windsor~~ to attend
 Cromwell when ~~he~~ ^{he} fell sick in 1651.
 A surgeon was also sent from London to
 attend Shippon when he was seriously
 wounded ^{being shot in the side} at Naseby. In such cases
 the fees paid by Parliament were very liberal.
 The Parliamentary ^{in field} ~~armies~~ ^{armies} were
 not accompanied by movable hospitals. It
 was customary to billet the sick and wounded
 in the villages and towns near the fields of
 battle and when the numbers ^{of wounded} were large,
 as after Naseby, the wounded were collected
 together in the nearest towns and surgeons sent
 from London to attend them. Thus Matthew Maule
 received the wounded after Naseby. The
 Parliamentary Commissioners with the Army
 arranged for their care and subsistence.

The first of these hospitals was established at St. Thomas in 1546, and was the first of a series of hospitals for the poor, which were founded in the reign of Henry VIII. The second hospital was founded at St. Bartholomew's in 1547, and the third at St. Peter's in 1548. The fourth hospital was founded at St. James's in 1549, and the fifth at St. Andrew's in 1550. The sixth hospital was founded at St. Martin's in 1551, and the seventh at St. George's in 1552. The eighth hospital was founded at St. Mary's in 1553, and the ninth at St. John's in 1554. The tenth hospital was founded at St. Michael's in 1555, and the eleventh at St. Nicholas in 1556. The twelfth hospital was founded at St. Paul's in 1557, and the thirteenth at St. Andrew's in 1558. The fourteenth hospital was founded at St. James's in 1559, and the fifteenth at St. George's in 1560. The sixteenth hospital was founded at St. Mary's in 1561, and the seventeenth at St. John's in 1562. The eighteenth hospital was founded at St. Michael's in 1563, and the nineteenth at St. Nicholas in 1564. The twentieth hospital was founded at St. Paul's in 1565, and the twenty-first at St. Andrew's in 1566. The twenty-second hospital was founded at St. James's in 1567, and the twenty-third at St. George's in 1568. The twenty-fourth hospital was founded at St. Mary's in 1569, and the twenty-fifth at St. John's in 1570. The twenty-sixth hospital was founded at St. Michael's in 1571, and the twenty-seventh at St. Nicholas in 1572. The twenty-eighth hospital was founded at St. Paul's in 1573, and the twenty-ninth at St. Andrew's in 1574. The thirtieth hospital was founded at St. James's in 1575, and the thirty-first at St. George's in 1576. The thirty-second hospital was founded at St. Mary's in 1577, and the thirty-third at St. John's in 1578. The thirty-fourth hospital was founded at St. Michael's in 1579, and the thirty-fifth at St. Nicholas in 1580. The thirty-sixth hospital was founded at St. Paul's in 1581, and the thirty-seventh at St. Andrew's in 1582. The thirty-eighth hospital was founded at St. James's in 1583, and the thirty-ninth at St. George's in 1584. The fortieth hospital was founded at St. Mary's in 1585, and the forty-first at St. John's in 1586. The forty-second hospital was founded at St. Michael's in 1587, and the forty-third at St. Nicholas in 1588. The forty-fourth hospital was founded at St. Paul's in 1589, and the forty-fifth at St. Andrew's in 1590. The forty-sixth hospital was founded at St. James's in 1591, and the forty-seventh at St. George's in 1592. The forty-eighth hospital was founded at St. Mary's in 1593, and the forty-ninth at St. John's in 1594. The fiftieth hospital was founded at St. Michael's in 1595, and the fifty-first at St. Nicholas in 1596. The fifty-second hospital was founded at St. Paul's in 1597, and the fifty-third at St. Andrew's in 1598. The fifty-fourth hospital was founded at St. James's in 1599, and the fifty-fifth at St. George's in 1600.

these hospitals from all taxation. In the hospital reports of the period we find mention of large numbers of soldiers having been under treatment. At St. Bartholomew's in 1644, 1,122 "maimed soldiers & other diseased persons" received treatment and at St. Thomas in that year 1,063 persons were treated. The hospitals ~~except where~~ where a great number have been soldiers. Ultimately the numbers of sick & wounded became so great that these hospitals ~~became~~ ^{were} unable to admit them and Parliament therefore in Nov. 1644 established a military hospital at the Savoy. In 1648 the House was also turned into a military hospital. The two provided for 350 patients. These hospitals were under the charge of Parliamentary Commissioners. As the war continued it was found necessary to open military hospitals elsewhere. Thus in 1649 two were established in Dublin, one in the Archbishop's house, the other in a "moss-house" in Back Lane. They afforded accommodation for 200 men. ⁽¹⁶⁴⁹⁾ In Scotland in 1654

these hospitals from the first...
 in Scotland, about 10,000 men. The revenue
 of Heriot's Hospital was directed to the support
 of the wounded & sick soldiers treated there and
 the annual expense varied from 1,300 £. a year
 in 1655, to 557 £. in 1659. The dietary
 was good, and consisted of 2 lbs. bread, 5 lbs.
 butter, one half pint of beer daily with
 butter 5 qrs, cheese 5 qrs on four days of the
 week and 1 1/2 lbs meat and a pint of milk
 or gruel for the other three days of the week.
 The cost came to 4/- per head per week.
 Commiserate were allowed 3/6 a week &
 arranged to feed themselves.
 In Flanders, in 1658, after the capture of
 Dunkirk, Sir William Lockhart found him-
 self with 400 sick & wounded to provide for. He
 therefore established a hospital in the town
 and arranged with the monks of a monastery
 in the vicinity to provide for their attendance
 and subsistence. One shilling per day for each
 soldier was paid to the monks. One monk had charge
 of each eight soldiers. This arrangement bore

Heriot's Hospital in Edinburgh became the
 base hospital for the Parliamentary Army
 in Scotland, about 10,000 men. The revenue
 of Heriot's Hospital was directed to the support
 of the wounded & sick soldiers treated there and
 the annual expense varied from 1,300 £. a year
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The in-patients of the Charities in 1652 numbered 31 rather divided
 Soldiers including 20 officers.
 The in-patients of the Charities in 1652 numbered 31 rather divided
 Soldiers including 20 officers.

In 1648 Parliament ordered £100 to be paid to Richard Owen who had lost his eyes at
 Marston Moor. In 1651 the income of officers & men killed at Marston received from
 the government was £20 to a private.

down Lockhart set up eight small hospitals.
 one for each regiment and appointed a
 sister to arrange for the provision of food &
 of "a convenient number of women to wait upon
 them." In all these hospitals the nurses were
 women chiefly chosen from amongst the widows
 of soldiers. In London, one nurse was provided
 for each twelve patients; in Edinburgh, for
 one to each five of the serious cases & one to
 each two for convalescent; in Dublin there
 was one nurse to each 10 patients. Nurses
 received no pay 4/- to 4/6 a week, or in Ireland
 £10 a year. If a sick soldier mistook home
 himself in hospital she was fined & after
 the third offence expelled. Nurses were also
 liable to expulsion if they neglected the
 duties or created disturbance by scolding or quarrelling
 between a soldier and his nurse was
 prohibited on pain of expulsion.
 (insert ante page 50)

Parliament in 1642 published a declaration promising
 to provide for disabled soldiers, their wives & families
 & for soldiers' widows & orphans. In 1643, 1644
 collections were made in the lower churches for the
 purpose of cloth, linen, & woolen stuff collected for
 the use of the wounded. To page 78

The most distinguished man of Cromwellian times
 who was connected with the medical services of the
 Army was Sir W^m Petty of whom ~~there~~ a short account
 may be suitably given here.
 Born in humble life the son of a clothier, at Remy, in
 Hampshire, he early developed rare intellectual abilities.
 The ~~very~~ ^{first} years of his life were spent in France
 where he continued to keep himself as a petty merchant
 whilst he educated himself at the Jesuit College at
 Caen. He soon became noted as a classical scholar,
 & linguist, ~~and~~ & mathematician, astronomer &
 navigator. In 1643 ^{at the age of 20} he went to Holland & France
 for three years & studied medicine at Utrecht,
 Leyden, Amsterdam, and Paris. Although often in
 great poverty whilst in Paris he became intimately
 acquainted with Hobbes, the Earl of Newcastle, Sir Chas.
 Cavendish & other distinguished refugees & ~~also~~
 find his correspondence on terms of equality with
 one of the greatest mathematicians of the time.
 In 1649 he went to Oxford where he at once took
 his degree in Doctor of Physic and then entered at
 the College of Physicians in London. In 1650 he
 became Fellow of Brasenose, ^{and then Vice-principal,} and held the chair
 of Anatomy. Residing in Oxford till 1651 he occasionally
 visited London where he held the appointment of Professor
 of Music at Gresham College.

77a. In Sept 1643 it was enacted that all officers of the parliament army under Lord Essex with pay of 10/- a day or upwards should receive only half their pay while officers with less pay than 10/- a day were to be paid ^{one third} ~~half~~ of thereof. The stoppages of pay to be refunded when the troubles were over. (Grove)

When the long Parliament fell, the Council of State appointed
a committee to direct the two military hospitals in London
and to administer funds amounting to £45,000 a year;
for the provision of pensions to disabled soldiers & the widows
& orphans of soldiers. About 6,000 persons were thus
cared for. Towards the end of the Commonwealth the
pensions fell into arrears and at the Restoration
were done away with altogether. ^{in 1840} ~~these~~ ^{and} sick soldiers,
~~1840~~ ^{and} 1,500 widows & orphans being
paid 12 weeks pay apiece and thrown on the care
of their parishes in accordance with the principle of
the Statute of 48 Edward III.

the Statute of 48 Queen Elizabeth.
Soldiers not altogether disabled but unfitted for duty in
the open field were sent to garrisons, the germ of the
militarized battalions of later times.

At the end of 1651 he was appointed Physician General to the Army in Ireland & to General Ireton, the C. in C. Landing at Waterford in 1652 he found that Ireton had died of an illness contracted during the siege of Diminick but he was confirmed in his appointment by Generals Lambert & Fleetwood, Ireton's successors. His pay was 20 shillings a day "at which I continued till ~~July~~ June 1659, gaining by my practice about 400 pounds per annum above the said salary." He became an ardent reformer of the medical arrangements of the army.

To quote his own words:—
"The vast and needless expense of medicaments, & how the
"Apothecary General of the Army, with his three assistants, did
"not spend their time to the best advantage; and forthwith
"to the content of all persons concerned, with the
"Stated here disbursement of £120, he did save ^{them} £500
"per annum of their former charge; and furnished the
"army, hospitals, garrisons and head quarters with
"medicaments without the least noise or trouble,
"reducing the affair to a state of ease & plainness
"which before was held a mystery, and a vexation to
"such as laboured to administer it well."

+ also quoted by Gore from Down's Survey.

* → By resolution of Parliament April 9th 1647 it was decided that "The pay of such Commanders & officers as shall be employed in ^{the} service in Ireland, shall be higher than such as shall be employed in England." ~~12th December 1647~~. It was also resolved that the back pay of the troops in Ireland or as it is put "pay, wh. was requisite on Joubin faith" shall be made good to them out of the rebel lands, by English measure, according to the rate & proportion settled by Act of Parliament, upon the finishing of the war, after satisfaction shall be first given to the ^(Grove) adventurers."

Harleian MSS 6544 is a list of the Army establishment on 27th Feb. 1659. Pay of surgeons is given as follows:-

Surgeon to the C. in C. & his mate 8/- a day
 Surgeon to a regiment of horse 4/- "and one horse to carry his ~~stuff~~ ^{bag} 2/-". Each Regt of horse = 480 men
 Surgeon to a regiment of foot ("1200 soldiers") 4/- and one mate 2/6 a day. (Grove)

* After the Congress of Ireland the question of parceling out the country amongst the soldiers & the "adventurers" who had financed the army arose. A survey of the country became necessary & was entrusted to another medical man, William Worlby. His survey was not approved of by Petty who ^{applied for} ~~submitted~~ a contract to survey the country himself & obtained it thereby gaining a considerable sum of money & laying the foundation of the ~~fortune~~ ^{fortunes} of his family. He received a grant of land himself as a reward for his services & made judicious purchases thus becoming a considerable landholder in Kerry & other parts. He now appears to have severed his connection with the Army & devoted his abilities to scientific & mechanical occupations. He invented a velocipede, & wrote a book on political economy. He was one of the original founders of the Royal Society & was knighted by Charles II in 1662 when that body was incorporated. He took a prominent part in the foundation of the ~~first~~ ^{first} College of Physicians & was an active member of the Philosophical Society of Ireland. In 1667 he married Lady Fenton, a daughter of Sir Henry Waller one of the signatories to the

Sir William Petty. (Note from the Life of Montagu's City in
T.P.'s Magazine March 1911)

"The Most Versatile Man of his Age."

"He mapped Ireland with a thoroughness of surveyorship never before achieved, acquired a great fortune, invented a double-bottomed ship, married a witty and beautiful woman, became an original member of the Royal Society, wrote admirable Latin verses, selected a dark cellar and an axe for a duel that he never had to fight, was appointed a commissioner of the Navy, astonished the world by his analysis of the divine "Bills of Mortality," and his treatise on Taxes, and failed to get farms of corn "because he omitted all the foreclosures that came near him."

"Tokenhouse ^{Yard} was built by Sir William Petty, the pioneer of political economy and vital statistics, whose name is now broadcast through the history of the period. He built himself a house here which was destroyed in the Great Fire of London while he was looking after his large properties in Ireland. His free and original mind at once occupied itself with the restoration of his home, and he wrote to a friend in London: 'Intend, God willing, to introduce the use of brick into the City, for I find that a sixth part more housing may be built upon my ground than with stone and at less charge.'"

Sir Wm Petty's will (with some autographical remarks) is given in the Annual Register 1760 p. 21.

death honors of Charles T. He was a friend of Christopher Wren & of Locke. The latter says "I never knew such another genius!"



The most Versatile Man of his Age:
Sir William Petty of Tokenhouse Yard.

first.
Thomas Fitzmaurice
above, the former

the division of the
Irish establishments
is precluded. This
is united one by
other with regularity
in period.

as which led to
his D. Baron, Montagu
~~at the time of the~~
extent enjoyed Montagu

in Corbett's "Montagu"
Manilla 1899.

Sir William Petty. (Note from the Life of Montagu in
T.P.'s Magazine March 1911)

"The Most Versatile Man of his Age."

"He snatched Delight out of that of St. Bar-
tholomew, was removed
before achieved, at Fire office occupies
bottomed ship, man
an original member
recess, selected a
never had to fight
astonished the world
Mortality; and his
of cost "because
near him."

"Taken home by the
Yard"

of political economy
from broadcast than
himself a house he
London while he was
His freeful and original
restoration of his
Intent, but willing
City, for I find that a sixth part more housing may be built
upon my ground than with stone and at less charge."



A "Comitatus"
Maecenas.

The church of
St. Margaret's,
Lothbury, now
does duty for the
demolished
churches of St.
Christopher - le -
Stock, St. Bar-
tholomew - by -
the - Exchange,
and St. Olave
Jewry. From the

"stick to Lothbury" in the sense of "st-
to trade." A similar idea seems to have
been in Wordsworth's mind when he
described the visions evoked in Poor
Susan's mind by the song of a thrush in
the City:

A mountain ascending, a vision of trees;
Bright volumes of vapour through Lothbury
glide,
And a river flows on through the vale of
Cheapside.

Lothbury has now almost the air of a
preserve, labelled "No Persons admitted
except on Business," but a century ago the
Lothbury Bathing Rooms, in Founder
Court, were widely advertised, and offered
Londoners salt-water baths, and such
balneal luxuries as "Sulphur-fumigating,
Harrogate, Barege, Chlorine, Iodine,
Medicated Vapour, and every
variety."

death warrants of Charles I. He was a friend of 80.
Christopher Wren a of Lothbury. The latter says
that he had "never known such another genius."
He died in 1687 of gangrene of the foot.
By the marriage of his daughter with Thomas Fitzmaurice
he became the ancestor of Lord Lansdowne, the former
Secy of State for war.

It should be noted that the division of the
Army into ^{separate} English, Scotch, and Irish establishments
first took place during Cromwell's protectorate. This
lasted until the three kingdoms were united one by
one. ~~and~~ The red coat of the soldier with regimental
facings also originates during this period.

In the accounts of the intrigues which led to
the Restoration of Charles II. we find Dr. Barrow, Montagu's
"physician & judge advocate" ~~of great service to the king~~
a leading part and ^{that he} to a large extent enjoyed Montagu's
confidence.

(Julian Corbett's "Montagu")
Mamillon 1899.

Sir William Petty's will (with some autographical remarks) is given
in the Annual Register 1760 p. 21.

Charles II

When Charles II ascended the throne of his ancestors in 1660 the old Parliamentary army, with its exception of the Earl of Oxford's cavalry regiment & Monk's regiment of foot, was disbanded.

These two regiments became respectively the
Royal Horse Guards & the Colchester Guards &
to them was added the Life Guards & the Foot
Guards which Charles brought over with him from France.
In the same year the Scots Guards was raised in Scotland.

In 1661 the British Standing Army amounted to 5000 men, divided into 2 Cavalry & 6 foot regiments. They were paid by the Crown.

Troubles in Ireland and elsewhere led to an augmentation in the strength of the Army & in 1684 the military forces amounted to 16,000 men.

Sept. 1680 - John Gally Chringer, 1683 John B. Allie, Chringer

In 1661, Pay list of ^{Regt. of} ~~Regt.~~ Horse Innos. shown.

Chinnago (4/- and no horse to carry his chest 2/-)
6s. per diem.

Thomas Sycom was the Chirurgeon in 1687 (Hark. Ms. 7018)
Life Span at first three troops with a boy to each, later first 2 troops became 1st & 2nd Lf. Co.

6 kmle $\frac{1}{11}$

Earliest establishment of Charles on
my bears date Jan. 26, 1860 (Hutchinson)
Two had already been raised.

Reg. Exp. - staff is of 2 Regt. of P.M.

includes 1 singer & 1 male 6/6 a day.

First ground being split upon his detention
in Oct. 1663. the day of the 2nd chapter
+ began ^{was} the 2nd until Nov. 1664 when
by the ^{act} of a petition the King
directs their recollection in the
configuration of their page.

Dutch horn - A Solaria leaves in broad
groups as masses, a detachment of these
for instance being on board the Royal
Exposition in the field of Lower Middle in

[illegible]

Dr. This Troutback, Zeno's temp,
Nathaniel Hubbard, King's birds,
Same Place, Arden's temp.

John Tinsford, Thos. Woodall, John Robinson
Singers in 1661.
Total payment 1661 says they 6/ a day & 2/ a for horse.

in February to
D, at London,
into, both
a treatise of
used upon his
of 1665, in which
one of a singular
manner of with
6th generation of
action of our (profession)
anatomy of the
St. Thomas' of
London. Afterward
to Willm.

ing of surgeons of London
chirurgus master

Charles

When Charles II ascended
1660 the old Parlia
exception of the Earl
& Monk's regiment of
these two regiments to
Royal Horse Guards &
to them was added 1
Guards which Charles
in the same year the
In 1661 the British
men, divided into
They were paid by
Trunkles in Ireland
augmentation in the
the military force

See June 1680 - John?

In 1661, Pay list

Chirurgien (4/- and no more
6s. per diem.

Thomas Sydenham was the Chirurgien in 1687 (Houl. No. 7018)

Life Guards at first three troops with a surgeon to each, later, first 2 troops became 1st & 2nd L.Gs.

Mem. State Paper Office
Date that in 1666 First found
unpublished in all respects with the
English found but were not wanted
a physician.

Charles II.

See Worsman. (ante)

John Browne, sworn Chirurgien in ordinary to
Charles II. He published in 1678, at London,
"A complete discourse of Wounds, both
general and particular, as also a treatise of
 gunshot wounds in general" based upon his
practice in the Dutch War of 1665, in which
he was severely wounded. He came of a surgical
family being, as he himself says, 'conversant with
Chirurgien from my cradle, being the 6th generation of
my own relation, all eminent masters of our profession'.
He also wrote on King's evil, anatomy, & anatomy of the
muscles, & glands. Studied at St. Thomas' of
which hospital he afterwards became surgeon. Afterward Surgeon
(B. 1642 d. 1700?).

In 1670 was declared against Holland.

In 1672 the King ordered the Company of Surgeons of London
to provide 20 Chirurgien and 20 Chirurgens mates
for military service.

Dr. Thomas Sydenham, Thomas Sydenham, Thomas Sydenham,
Nathaniel Hallowell, King's doctor,
same place, same time.

1679. John Sydenham, Thomas Sydenham, John Sydenham,
Surgeon in 1661.
Afterward Surgeon 1661 King's doctor 1679 & 2/- for horse.

and Pleasure, therefore, is that you take notice thereof, and give it in orders, that when the non-commissioned officers and private soldiers respectively shall be sick, the said Richard Whittle may be applied to for internal medicines, as well as hurt men are to apply to the Surgeon of the Regiment for external medicines, when they need the same.

" Given at Our Court at Whitehall, the 24th day of January, 1673.

" By His Majesty's Command

" Arlington.

" To Our Trusty and Well-beloved
Colonel John Russell, or other the
Officers in Chief commanding Our
Regiment of Foot Guards under his
Command."

(Close)

" Charles R.

83

" Whereas, for the preventing of the great and uncertain charge of Apothecaries' bills of physic and internal medicines for sick soldiers, We have thought fit to allow twenty shillings a year for each Regimental Company of three score soldiers besides officers, to the respective Surgeons of Regiments, from the month of September last, for ~~the~~ providing and furnishing of physic and internal medicines, as well as there has been and is forty shillings yearly, for each such Company allowed to the said Surgeons for external medicines for the respective regiments in which they serve. Our Will and Pleasure therefore is, that you take notice thereof, and that you give it in orders, that when the non-commissioned officers or private soldiers of your Regiment shall be sick or wounded, the Surgeon of your Regiment do provide physic or internal medicines, as well as external medicines ^{on Row.}

" Given at Our Court at Whitehall, the 24th day of January, 1673.

" By His Majesty's Command,
" Arlington"

To Our Trust and Well-beloved
Colonel Sir Charles Littleton, or
the Officer in Chief commanding
Our Most Dear Brother James,
Duke of York's Regiment"

(Close)

Clode mentions that on 13th July 1673-4 a surgeon
was suspended for not having given tests of qualification
under the late Act of Parliament; viz., "The Test Act of
1672 which excludes Roman Catholics from military
office, command or place of trust and from receipt of
pay," under certain pains & penalties.

By a regulation of Jan. 1st 1685, it appears that
soldiers received a King's Bounty of one year's pay for
the loss of an eye or limb, or the total loss of use of
a limb, certified by the Surgeon General. There was also
a bounty for other wounds in proportion. ^{from 1685}
~~There was~~ & soldiers disabled by wounds at this
time received duty pay according to the following scale:

Private Soldier	0.5	Captain of Light Horse	1/6
Drummer	0.7	Dragoon	1/6
Cornet	0.7	Cornet of Dragoons	7/9
Sergeant	0.11	Summer	1/2
Fair of the	1/6	Common	4/9

1673-4 a surgeon was suspended for not having given tests of qualification under the late Act of Parliament; viz., "The Test Act of 1672 which excludes Roman Catholics from military office, command or place of trust and from receipt of pay," under certain pains & penalties. By a regulation of Jan. 1st 1685, it appears that soldiers received a King's Bounty of one year's pay for the loss of an eye or limb, or the total loss of use of a limb, certified by the Surgeon General. There was also a bounty for other wounds in proportion. ^{from 1685} ~~There was~~ & soldiers disabled by wounds at this time received duty pay according to the following scale:

King Will. III on 1st May 1689 extended these
benefits to all soldiers of over 20 years service
or who had been become unfit for service.

Each of four soldiers in the 2nd Queens,
who had been wounded at Sedgemoor, was awarded
£6, 13s. 4d. (War Office Records)

1686 - According to the pay list of Cornwall's Regt.
Captains 9 £ For. One Chirurgon at 4/- a
day, and one Chirurgon's mate at 2/6, per
diem on the staff of the regiment. They are
shown on the staff next after the Major &
before the Adjutant & 2nd.

At this time and for nearly a century after it
was not unusual to find surgeons holding double
commissions. The surgeon purchased a commission as
ensign & drew in addition to an ensign's pay 2/6
a day for hospital duty. On promotion and
officers & gave up the original part of their entree.

When part of a regiment was detached for duty it ~~would~~ appear to have been the custom for the chirmen of the regiment to engage a 'mate' to take medical charge of the ~~part~~ ~~detached~~ troops whilst away on duty.

Thus, in 1678, the following certificate for the payment of such a mate was given. (Wentworth's Remo. Genl.)

"I doe most humbly certify, that in consideration of a party of designed for Flanders out of His Majesty's Regiment of Horse Guards, to be commanded by Major Sir Francis Compton, upon the first forces that were sent thither, Mr. Sackville Whittle, Chirmen to the said Regiment of Horse, had order to provide an able Chirmen to attend that party ^{his} mate, and did contract and agree with an able chirmen pursuant thereto, on the 14th March last past, from which date the said mate is by contract to enter His Majesty's pay, any provision being made by the late Establisment for the said mate only, to commence from the 1st May inst,

the said chirmgeon will hereby full short of pay
due to him by the said contract, from the ~~14th~~
said 14th day of March inclusive to the said
1st May, being forty eight days, which
according to His Majesty's Establishment, will
amount to eight pounds eight shillings.

" Given under my hand the 31st day of May,
1678.

" John Knight.

John Knight, Sergeant Surgeon to Charles II
was a naval surgeon at the time of the Restoration
and ~~attended~~ with "Dr. Quastman, Physician and
Mr. Richard Billig" ^{assistant surgeon} to the King on his voyage
from the Hague to Dover in 1660. After this
his name frequently appears prominent in the
official records in all matters concerning the
sick & wounded. He appears to have acted as
D.S. of the Medical Dept of the Navy but
there is evidence to show that he frequently
acted in a similar capacity for the concerns of
the ^{Army} Medical ^{Staff} ~~Department~~. Indeed in his Diary

In 1664, on the outbreak of war with the Dutch
a Commission for the Sick and Hurt was appointed.
This Commission was empowered to appoint surgeons to
the ports and to dispose of one half the hospitals
in the kingdom. One half of 80. Thomas' Hospital
in London was certainly set apart for the sick &
wounded during the Dutch war.

Arbinger, Sec. of State
Dr. Joseph Williamson, Arbinger's Secretary.

87
notes that he was accompanied by Knight,
who acting as one of the Commissioners for the
Sick & Wounded in the Dutch War,
one of the sick & wounded in the Dutch War,
on his visit to the Kentish ports. In 1672, at
25.3.1672, there was abundance of miserable
wounded men, His Majesty sending his chief
Chirurgien, Sergeant Knight, to meet me.
In 1661, Knight had become Principal Surgeon to
the King (fee £6.6.8, with pension £150). and in
the same year First Principal Surgeon to the
King and First Sergeant Surgeon, with annuity of
£150 (Cal. S.P. Dom. Charles II).
An entry in Cal. S.P. July 5. 1666 ~~that~~ is as
follows.

"John Knight, Surgeon General, to Williamson.
Lord Arbinger agrees that no surgeons have their
Commissions signed till allowed by him (Knight)
as Surgeon General; also that all orders for
clothes and medicines be directed to him, to see
that they are sufficient, both in quality and
quantity.

Also, J. Knight to Williamson. Requests him to deliver Jacques Wismar's commission to Senger to the Earl of Carlisle's Regiment, and to speak a word for Mr. Brown, as the Earl of Boyle is not yet provided.

It is therefore evident that Sergeant Senger Knight was acting as Senger General of the Army at this time. He was master of the Bank Senger's Company in 1663, 1669, 1677. (Annals of the Bank Senger, S. Young, Lond 1890.)

1684. Pay list of His Majesty's own Royal Regiment of Dragoons and from the 4 troops of 70 each 11000 and 2 fulls each 1000 - 10000 per annum
"Chimney 10^s, and 1 horse to carry his chest, 11^s 6s.
The Chimney was Peregrine Jewel.
Commi. 11000 of 1st in Royal Dragoon 1890.

In the establishment of the Forces raised the 10th day of Octbr 1661
for his Majesty's service in the Kingdoms of Eng, Scot, and Munster,
under the command of his Excellency Y^e Earle of Peterborough.
we find amongst the Field and Staff Officers of his EXC^{ts} some
Regiment of Foote

A churgen at 4^s 3^d with a mate at 2^s 6^d. 2 5 4
Per diem 6^d 6^d per man 9^d 2^d 0^d per annum 118-12-6
The regiment was 1000 strong. There is another regt of the same strength
Two other regiments raised at the same time but each of which had
a strength of 500 men. ^{Each} a churgen & mate. ~~1000~~

Amongst the Field and Staff Officers of these
was a churgen at 4^s 3^d with a mate at 2^s 6^d.
Other appears to have only been one troop of 100 troopers.

General Officers with those of the Troop.
Physicians Two at 10^s with an Apothecary at 5^s.

There was also a troop of Portugall Horse, 80 strong, which had a
churgen at 4^s 3^d with a mate at 2^s 6^d.
and a horse at 2^s 6^d.

Flap amputation at one time practiced by the
Roman Surgeons were re-introduced by ~~London~~ London,
an Oxford Surgeon in 1679.
Von Hilden (1560-1634) introduced a form of tourniquet
by placing a piece of wood under a bandage encircling
a limb, and Morel, at the siege of Besançon in 1674
used the black tourniquet.

Tangier

In skirmishes outside walls of Tangier losses of British
troops amounted to 250 men before the end of 1662,
and in addition ^{about} another 250 had succumbed to
sickness.

4th May 1664, The Earl of Torrington when making a
reconnaissance in force some miles into Munster
fell into an ambuscade. His troops were
surrounded and he with 19th ^{commissioned} officers, 15 gentlemen
and volunteers, "the doctor", together with 396
non-commissioned officers and private soldiers
(Letter to King Charles)

"The doctor" was named White and was a
"reformed" that is an officer serving as a volunteer
or an officer of a disbanded corps attached to another
corps and receiving pay.

no quarter asked or given,
It was a gallant fight against odds, ten to one,
and only nine men escaped, ^{and got back} into Targui
The Chirurgeon of the Earl of Tarris' Regiment
was named George Elliot and his mate,
Robert Smalwood.

In 1664 complaints were made of the way the
soldiers "die space" for want of proper food.
(one regiment, £1,400 a year, and half a troop of horse)

In Jan. 1668 a reduced establishment of the
forces ~~at~~ at Targui was adopted.

~~But~~ In the estimate ^{there was} ~~allowed~~ ^{allowed}
"for the Hospital besides the Soldier's pay
when sick added to the Hospital towards
maintenance." £1-10s. diem, £42 mensem.

"Of which an exact account to be rendered
every three or six months."

(A private soldier in the infantry received 9d a
day a trooper 2/6.) The pay was at times
as much as ^{to 25} 12 months overdue.

In July 1669 the men fell sick at the
rate of 10 a day.

90
The maintenance of the hospital from
12th May, 1666 to 11th June, 1669 cost
£2,019, 14s., 9d. (Peppes' accounts)

In the year 1674-5 [£]547-10s was
allowed for the maintenance of the hospital.
"The Physician at 15s per diem"
"A Chirurgeon at 4s per diem and a
Chirurgeon's mate at 2/6 per diem."

^{MS} In the old Targui accounts is a curious writing of payments
made at this time, one of £20 to "The Chirurgeon & in Charles Fort,
Targui, for several Medicaments and Instruments of Surgery left there."
(Charles Fort was taken by the Moors in 1680) Another item is
£32.9s for quarters and care of sick and wounded soldiers
of Earl of Plymouth's Regiment (Fourth King's Own) also £50.2.7
for two chests of old linen and one chest of medicaments sent to
him to Targui. (Audit Office despatch accounts, Bdl 310, Roll 1, 226)

MS
114 infirm soldiers sent home on 18 Oct 1683
MS
114 infirm soldiers sent home on 18 Oct 1683

William 3rd

95

The Standing Army was legalised by the Bill of Rights soon after the Revolution of 1688 and the Army was reorganised by William III.

1689. Dundee killed at Killinrankie.
Siege of Kinsale. Relieved July 30th.
Schomberg reduces Carrickfergus.
1690. Battle of the Boyne July 1st, Waterford taken July 25th.
In company with the Duke of Marlborough, takes Cork, Sept. 28. Kingsale Oct. 5.
Grinkel then commands in Ireland.
1st Siege of Limerick by William Aug 8 to 30th fails.
1691. Grinkel takes Baltimore, Athlone, defeats St. Rost
at Aughrani (July 12) takes Salway, July 21st and
besieges Limerick Aug. 25th. Limerick taken November
Oct. 3rd.

Water bottles were first issued to the troops during
this reign.

Lord Walsley in his "Life of Marlborough" writes

"From first to last throughout William's war in Ireland, want, and its awful shadow, disease, dogged the steps of the English army." Marlborough's army in the South of Ireland suffered greatly from want of good provisions and lack of money with which to purchase the ordinary necessaries of life, and we find Brigadier Churchill writing that his troops must either conquer or starve that they were well nigh desperate and that ~~of~~ 500 soldiers there were not 100 pairs of shoes. Sickness increased at an appalling rate and it became necessary to establish a hospital at Kinsale. In the Council-book of Kinsale we read "That Brigadier General Churchill, our Governor, be informed, that Mr Wm Stull's house, formerly Captain Stanwell's dec. is the fittest in the town for an Hospital, and that Mr Stull be satisfied by the Corporation for the same, and that the Governor be entreated to lend or sell coals for the use of the Guards and Hospital, the charge to be defrayed by way of a rate on the inhabitants of the town."

William III

In the Journals of the House of Commons 1st of King William III 96
is given the estimate of the pay of the army to be employed in Ireland. Soldier's pay was as follows. —

Dragoon — for himself & horse 6/- a day.
Sergeant of Foot 4/- and his mate 2/6 a day.
(Each chaplain got 6/8 a day)

In 1697-8 an allowance for servants was made to certain officers of the army but I can find no evidence that sergeants were included in the list.

William III's campaign in Ireland was woefully mismanaged. The transport arrangements were an utter failure and we read that every departmental arrangement was so bad that the "every detail in every department required the personal supervision of the C. in C. (Schomberg). Whilst the army was at Dromahaire the amount of sickness was very great and we find that "there was no hospital; and had there been the hospital there were no medicines." The behaviour of the officers was shameful of whom the colonels were perhaps the worst. The men were robbed of their pay by the treachery of the army & by their own officers. Schomberg we read ~~also~~ carried a week's work in surmising that the men's pay went into their own and not their captains' pockets. It is satisfactory to learn that the failure

of the medical arrangements was not due to the Army Medical Officer. Harbord, the Treasurer of the Army acknowledged his responsibility for the lack of hospital arrangements and admitted that had he known as much about hospitals at the beginning of the war as at the end of the campaign, he might have saved two-thirds of the men. The truth was he never supplied ~~any money~~ for the medical arrangements.

This Harbord, ~~who~~ amongst so many robbers of the soldier's pockets was the most shameful and shameless of all. A civilian and an M.P. he obtained by jockey an independent troop of cavalry, for which he drew pay as though it were complete and this was the only corps which was regularly paid. It is ludicrous to discover that this well paid troop ~~was~~ actually consisted only of himself and his two clerks and an attendant whom he kept in his bed chamber. It was indeed a good time for the civilian element in the Army and a bad one for the soldier. Whilst the Army of 14,000 men were at Breda, the winter of 1689, 6,000 perished of disease and starvation.

During William's campaigns in Flanders the losses were very heavy. At Steenkerke alone the Allies lost 3,000 killed and as many wounded, 1300 prisoners, and 450 officers killed & wounded. Most of these losses fell upon the British who bore the brunt of the action. At Landen the Allies lost amounted to 12,000

killed, wounded & prisoners. The 19 British Battalion, 97
precisely lost 135 officers killed, wounded & taken.

I have not been able to find out any details of the medical organization during these campaigns but it is probable that in this land of fortified towns the wounded were carried to the nearest ^{British town} and there treated.

(Fortescue)

We learn from the Commons Journals that there were on the staff of King William's Army in Flanders in 1691 a Physician General, a Surgeon General, and an Apothecary General, each of whom received pay at the rate of 10/- a day.

(quoted by Fortescue)

In 1689 the Surgeon to the Life Guards received pay at the rate of 6/- a day with 2/- a day Forage Allowance.

[Pay list given in Fortescue]

It was at Landen that Corporal Train, ^{an unwell soldier left on the field one day before I was exchanged; and put into a cart with thirteen or fourteen more, in order to be conveyed to our hospital.} tells us, "It was more than a day before I was exchanged; and put into a cart with thirteen or fourteen more, in order to be conveyed to our hospital."

(Thomas Train from Landen)

With regard to recruiting for the Army at this period,
there was no limit of age and no standard of
physical fitness other than height. One wonders
what would be said at the present day of a soldier
answering to the description of a deserter in Juvénal's
reign - "with his ^{two} fingers frozen on the left foot, on his
left hand two fingers growing together, the little toe
of his left foot always sticking out of his shoe."

(-G. le M. Grotton in "Draught of the")

It was considered effeminate for a soldier to be ill during Marlboro's campaigns but ultimately, the terrible battles of the campaigns and the fever-stricken countries in which they took place brought the matter into ~~the~~ ^{the} prominent position, and the fighting man was granted the benefits to which he was entitled.

At this time the medical service was kept well to the front by the ability, indomitable courage, perseverance, and clever administrative powers of Sir John Pringle. With the greatest difficulties to surmount he found absolutely the means for ^{the} ~~a~~ ^{the} ~~disposition~~ ^{disposition} of medical elements to the combatant strength. At this time & until 1796 it was not at all uncommon for a medical officer to hold a double commission which allowed him to act in two capacities - as Captain and Surgeon.

? Sir John Pringle, the Surg. Genl. to the
troops serving under Marlborough first
introduced the system of regimental, field and
General hospitals.

A General hospital was opened at Ash after
Fontenoy in 1745 (May, 11th) which received
upwards of 500 wounded. During the same
year a similar hospital was opened at Bheat
which received upwards of 1,500 sick &
wounded.

(Army B. of Brit: Imp.)
Pringle was not in Army at the time.

In the rates of pay given in the H. of C. Journals for the Staff of Marlborough's ~~Army~~ Army in 1703 we find that there was a physician who received 10/- a day. The physician in the staff in the Army for Spain in 1707 was also paid at the same rate.

The same authority tells us that the physician-general, Surgeon General and Apothecary General on the Staff of the Home Establishment in 1717 also each received pay at the rate of 10/- a day.

to fighting before 600 miles
March ~~to~~ Blenheim. — March 3 or 4 days then battles a day. March began at 3 a.m. marches 24 to 48 leagues and reached camp at 9. The arrangement for the march was greatly hindered, commissaries, pressed the troops so that camp sites were selected and food for men & horses collected before the troops arrived. So that the soldiers had nothing to do, but to pitch their tents, build their huts, and lie down to rest.

Gibraltar taken by Rooke 1704. 102

Blenheim 1704. Sick & wounded were only provided for & placed under shelter, the tents which had been captured from the enemy being used for the purpose. + Allie lost 5,000 killed & 8,000 wounded. French over killed 13,000. Ramesis 1706. Want of organization caused the wounded to be left on the field.

Capture of Lille 1708. Sick & wounded were taken to Douay & those of the enemy receiving the same care as our own.

Malaga 1709. First aid given by the surgeons on the field. Many after being attended to were seen returning to the scene of combat. "pale & bleeding to look again their places in the ranks & support their gallant comrades." French had 3,000 wounded when Marlborough proposed to Villars should be removed to French quarters on condition of being regarded as prisoners of war. Allie lost 18,000 killed & wounded. the French 14,000.

Munich taken 1708. Oudenarde 1708.

Munich was held prisoner until 1756.

To page 104
The day after the battle, all our wounded were sent to Dordrecht. When you have the battle was fought. (Parker, in question.) Allie lost 6,000 killed and above 8,000 wounded (Parker). French retreated through them & carried with them 7,000 wounded of whom 1,000 were officers. French prisoners & wounded were sent

+ After Blenheim. — French prisoners & wounded were sent to the village in the rear of the allied army ground & covered by French.

Parker as Corpses were taken 40,000 & 45,000 killed, 70,000 wounded.

In 1710 by an act (9 Anne, c. 8) the Military Act was renewed and the provision of medicine for the army was affirmed of; ~~It was affirmed~~ "To the end that Her Majesty's Forces might be supplied with good & wholesome medicines, internal and external, and for preventing the loss & suffering of many officers and soldiers for want thereof."

All Surgeons and Apothecaries were required to fit up their chests at Apothecaries' Hall, and they were to be examined and certified by the Master & Wardens of the Apothecaries' Company, and the Physician or Surgeon-General of the Army.

103
By Articles of War for the forces beyond seas during the reign of 2. Anne. Plunder of the enemy was strictly forbidden until after the enemy was beaten. Any person "presuming to pillage a plunder till the enemy was entirely beaten" was liable to suffer death or such punishment as a Court martial should pronounce against him, and "the pillage so gotten shall be forfeited for the use of the sick and maimed soldiers." It was further laid down that one tenth part of all spoil should be "laid apart towards the relief of the sick and maimed soldiers."

By the articles of War a century or more later + any soldier neglecting to attend regularly Divine Service and sermon, became liable to a fine of twelve pence which soon was applied to the use of the sick soldiers of the troop or company to which the offender belonged.

+ Marshall says - fine in 1846.

In Queen Anne's reign "all officers and soldiers, of what quality, sever" were required to ~~that~~ take this oath:—

"I swear to be true to our sovereign Queen Anne, & to serve her honestly and faithfully, in the defence of her person, crown, and dignity, against all her enemies and opposers whatsoever, and to observe or obey Her Majesty's orders, and the orders of the Generals and officers set over me by Her Majesty. So help me God." Pressed men do not appear to have been forced to take this oath. In 1744, on exhibiting the Articles of War against mutiny and desertion were directed to be read to them, after which they became subject to military discipline. An Act of 1745, directed that no man should be pressed, but "able-bodied men, free from rickets and every other distemper or infirmity, that may render them unfit for duty." This is the first official document assigning rickets as a disability disqualifying for service in the army. It does not however appear that medical evidence of the recruit's disability was required.

1704.

104
The night after the battle of Donnauwörst ^(2nd July 1704), Marlboro. (~~not~~ Schellenberg) where Marlboro. defeated the Elector of Bavaria, found the Allies with 4000 wounded and 1500 dead soldiers at their feet. The weather was very wet and this greatly aggravated the condition of the wounded. Marlborough, it is said, had given orders, foreseeing that the Franco-Bavarian Camp could not be taken without great bloodshed, to establish a hospital ^{at Mindingen} for the wounded, an attention not as yet generally bestowed by military commanders on suffering humanity; and he desired that particular ^{attention} might be paid to the sufferers. Leaving ~~the camp~~ the wounded with a garrison at Schellenberg Marlborough pushed on with his army to the Danube. On 11th August he was joined by Prince Eugene & his army and this brought the Allies' strength up to 52,000 men with 52 guns. The French numbered 57,000 of all arms. On 13th August the Battle of Blenheim was fought. (See page 102) And soon as the fighting was over Marlborough gave orders for the dressing of the wounded and directed that they should be at once placed under shelter in the ^{huts} captured from the enemy. During the attack

On Blenheim Cuth's English Brigade lost one third its
killed & wounded
members in a few minutes.

On 23rd July 1704 Blenheim was taken by the
main & saloon of Sir George Roke's fleet after a
siege of three days. The English lost 60 killed and 216
wounded out of a force of 2000.

23rd May 1706. Ramillies. Strength of armies (Allies 60,000
French 62,000)
French lost 2000 & 2500 killed & 15,000 to 17,500 captured
Allies lost 1066 killed, 2867 wounded. French baggage was left on
the field. Sick & wounded, military French, were lodged in hospitals
& received equal attention by Marlborough's order. (Cust.)
11th July 1708. Oudenarde. French army 100,000 men.
Allies 124 battalions, 180 squadrons. Allies lost
3000 men. French losses enormous. Their army
practically destroyed.

Fighting continued until late at night. "A prodigious
number of wounded of different nations lay all round
on the field, and the first attention was made at the
break of day, by order of Marlborough, to collect the
survivors, and bestow on all without distinction the care
and relief which circumstances would permit. It is
a great characteristic of Marlborough, that he was
always most thoughtful for the wounded; and it is
believed that owing to his example camp hospitals
were first established." (Cust.)

Siege & Capture of Lille. 10 Dec. 1708.

105
Allies lost 17,000 killed & wounded. French Garrison
lost 5000. The siege lasted 29 days.
The Protestants & wounded were conveyed to Douay & provisions supplied.
Marlborough endeavored the common soldiers to him
by the great attention he paid for their well-being
and his remarkable humanity towards the sick &
wounded, ~~by this~~ He was on familiar terms with
his men who called him "Corporal John."

There is in the Vattel, Vol. 89, Oct. 29th 1709, a letter
from a Sergt. of the Guards from the camp before Mons in
which he refers to friends in the hospital there. This shows
that hospitals accompanied Marlborough's armies in the field.

Peterborough's expedition to Spain, which according
to the London Gazette ought to have ^{numbered} been 25,000
men, actually numbered little more than 5,000
and was said to have been absolutely without any
transport train. The whole show was woefully
neglected. The men were for months without
pay although large sums had been voted by
Parliament for the war. Dr. Friend, who was with
the army, published accounts which show a great prevalence
of dysentery & fever amongst the troops.

Neither Friend nor Carleton give us any account of the medical arrangements for the expedition.

We ^{can} gather from Malborough's despatches, private letters and his camp regulations that he did his best for the ~~care~~ ^{comfort and welfare} of his troops. The Regulations for the sanitation of his camps were rigorous & reiterated. Men ~~were~~ ^{does} not appear to have been regularly ~~assigned~~ ^{assigned} to the troops for commanding officers were ~~instructed~~ ^{directed} to instruct to buy, kill, and sell meat to the soldiers.

After Maplesquet. - The number of wounded was so large that Malborough wrote to the French mandats asking for measures to be made between General Cartagen & a French representative for the burial of the dead & the removal of the wounded. A time was therefore arranged & 2 days taken to bury the dead and remove some 3000 French wounded. French officers were released on parole and soldiers ^{convinced} ~~thanked~~ as prisoners of war until exchanged.

HE

1707 With Peterborough in Spain were the 6th, 4th, 11th, 106th, 17th, 33rd, and 36th Regts. They were all at Almonaca. A regiment, which was afterwards disbanded, made a gallant defence of the Castle of Almonaca. After refusing to surrender ~~the~~ the officers, with their troops, repaired to a bunker and their death the health of Queen Anne. A few minutes later a mine under this bunker exploded and blew the castle & regiment almost to pieces. At Almonaca Sir John Dalrymple of the 2nd Queen's Royal Regt. was taken prisoner. In the morning for Henry Villan, lines at Orleans & Cambrai, first English fort made 13 leagues in 18 hours carrying 50 the weight of shot.

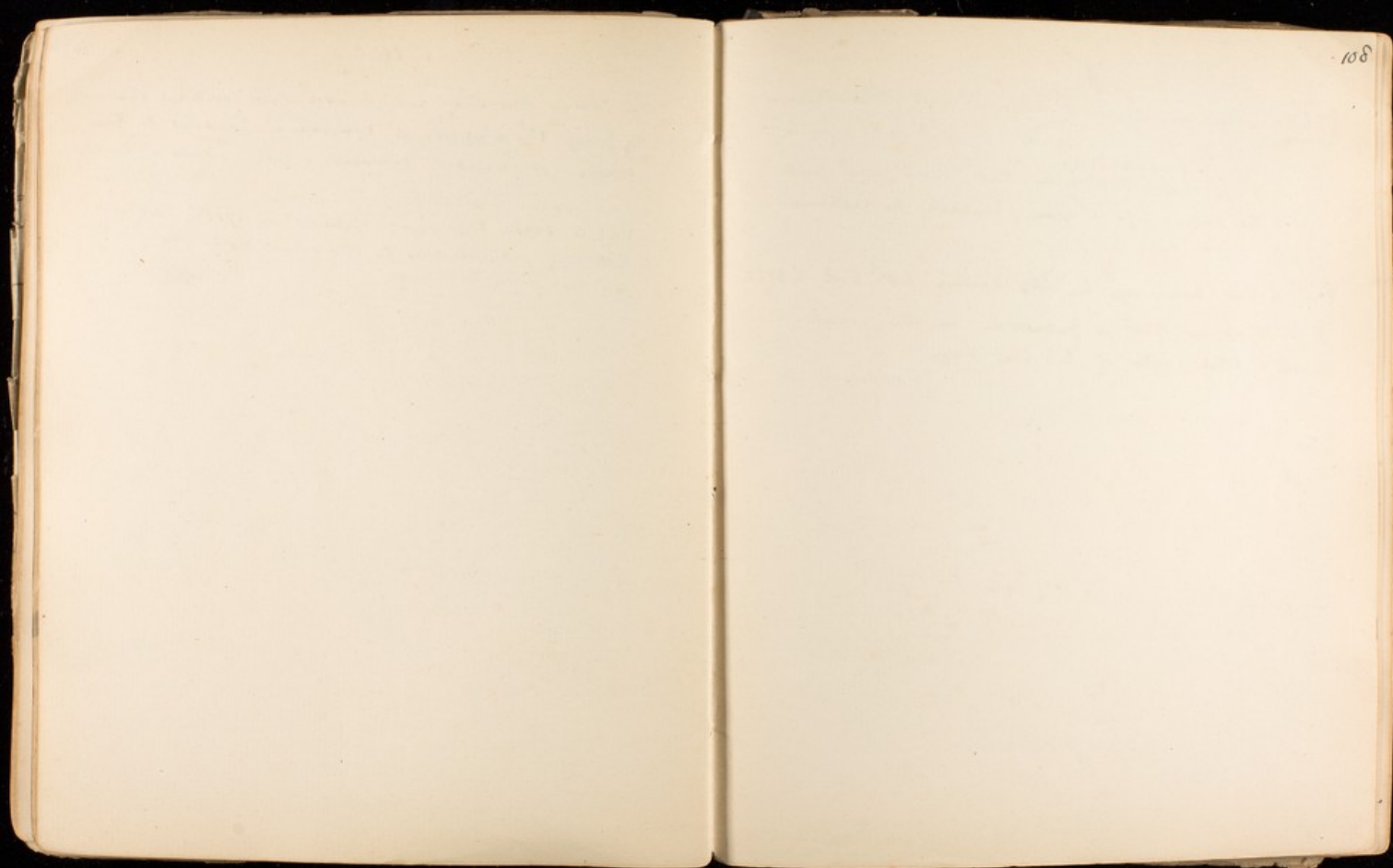
(Military Transactions from 1685 to 1718, in Ireland & France, by Capt. Robert Parker R. R. Regt. & Fort in Ireland. London 1748. (18th R. I.)

1716

107

Sir Hans Sloane was created ^{second} first Medicine Baronet
by George 1st & appointed Physician General to the
Forces. He ^{was} ~~was~~ in Jamaica on staff of Duke of Buckingham.
(See p. 88 &c.)

Petit's screw herniometer appeared in 1718. Lateral
lithotomy and operations for strangulated hernia began to be
practised about this time.



1720. Reps. for Outrages of dragons + forts, Miscellaneous
Orders, 28th June 1720. Quoted by Fortescue.
(continued 1732)
From here it appears that every man paid
the dragon 2/- a year, probably for medicine.

From a list drawn up by Lt. Baillie, 60th Fns, in 1762
It would appear that a Grenadier on the march
carried a total weight of 63 lbs 3 oz.
(Fortescue)

To follow p. 118. 109
25 years following Marlborough's campaign
During the first thirty years of the 18th century the
British Army was at its lowest state of degradation.
Despised & hated by the people whose jealousy of
a standing army was more just cognate of
by politicians. The army was mismanaged & neglected.
in all its branches.
The glories of Marlborough seem to have been faded.
The army was ^{restored} true after this return. In 1715 owing
to the rebellion it was for a time increased
afterwards again reduced. There came the war
of 9,000 men
1740-41 with ~~France~~ Spain. An expedition was fitted out
to journey to the West Indies. It was a good
example of how not to organize an expedition to
the tropics. Lord Cardigan was in chief command &
he states that part of his force was made up of
men who were not strong enough to carry their arms.
The expedition ^{did not start} ~~was delayed~~ after the
troops had embarked so during this time they consumed
the greater part of the provisions for the voyage.
In the first 6 weeks
Scurvy broke out & there were already 60 deaths
The men could not be found to man the ships. Finally
the expedition started 4 months later on Nov. 4th 1741
broke up on board & the last time + 100 men died
during the passage voyage. After a delay in

Jamari during which American troops joined the
army the expedition proceeded to Carthagen.
During the fighting here the losses by wounds were very
heavy but dysentery & yellow fever added to the horrors
of the campaign. In 4 days in April 1741 the
army of 6,600 men dwindled to 3,200. The
~~entire~~ ^{all} expedition failed and it was decided to return to Jamari.
Drumhett who was surgeon on a man-of-war & was
present draws a horrible picture of the state of
things on board the transports. "It is said that
there were no cooks, nurses, surgeons, nor provisions.
On the 5th May when the fleet sailed there were
only 1700 men fit for duty. ^{During} the two previous
days ~~the~~ the men were on board but the ships
lay idle in the harbor of Carthagen. Drumhett writes,
"The men were pent up between decks in small
rooms where they had not room to sit upright; they
huddled in filth; myriads of maggots were hatched
in the putrefaction of their sores, which had no other
dressing than that of being washed in their own
urine of brandy; nothing was heard but groans
& lamentations & the language of despair invoking
the deities to deliver them from their miseries."

110
The
A point of interest in this expedition is that
"hospital ships" had been provided. These
ships however ~~seem~~ ^{seem} to have had no
medical personnel or equipment and it
would appear ~~that~~ ^{that} the sick were placed
in board these ships whilst the surgeons were
with their regiments on the regimenter transports.
The sick were thrown overboard into the harbor
where after a few ~~days~~ ^{hours} they rose to the surface
& floated about the transports whilst sharks
of sharks and birds of prey fought &
scrambled for them.
During the following month 1100 men died
and during the following weeks the men died at the
rate of 100 a week. By November there were
not sufficient men to supply relief for the
warring garrisons. 3 expeditions were directed against
Cuba, Porto Bello and the lower continent. No
estimated that ~~one~~ of every 10 men who left England
with Carthagen only one returned. Of Wolfe's Regt.
which another regt. had been drafted only 96
officers & men returned to England.

Ultimately the expedition struggled back to England.
"They left behind them the bones of ^{about} 15,000 men,
of whom the vast majority had succumbed to
the effects of ^{the} climate and to the neglect of all
medical and sanitary precautions which dogged
this miserable campaign." (Breton, in "Sonrisa")

The following regiments served on this expedition & were
accompanied by their surgeons & surgeon's mates.
The 6th 1st 1st 15th, 16th, & 36th Regts. The 6th
suffered so badly from disease that when it returned
home from Jamaica in 1742 it had only 18 men left
of the 800 who sailed from England. Several surgeons
died of disease during this expedition.

SURGEONS Company & Army Surgeons.

On May 2nd 1745 ¹¹¹ An Act of Parliament became law separating
the Barbers from the Surgeons in the Barber-Surgeon
Company. This was the foundation of the
Surgeons Company. One of the clauses introduced
when the Bill was going through the Committee
stage made the provision that "The examination
of the said Company are to examine all persons
who shall be candidates to be Surgeons or Surgeon
Masters in His Majesty's army."

Cheselden (Surgeon to Queen Caroline & Chelsea Hosp.)
and Rankin, Surg. Major to George II. (see ante)
were the champions of the separation movement.
Rankin did not belong to the Co. but his
services were recognized by his nomination as first
Master of the new Company on a special favour.
and at the first opportunity he associated with the
freedom and being of the Company. In return he
presented a handsome silver cup to the new Corporation. He
was Master again in 1751 and for a third time in 1752.

The examination of ^{and Navy} Army Surgeons continued to be for a long time one of the functions of the Company. In the Minutes of the Court of Examiners dated 21st Dec. 1758 the entry runs: James Bernard, mate to an hospital; Olivier Goldsmith, found not qualified for ditto." About this time also Smollett passed as Surgeon's mate for the Navy. An account of the examination will be found in Smollett's Perennial Random. (D'Aug Power, Surgeon in Chief of Surgeons in)

A ~~great~~ dispute arose about this time between the Surgeons' Company and retired Army & Navy Surgeons who set up in practice for themselves without first obtaining the diploma of the Company. The old Army Surgeons declared themselves to be acting within the law under an Act passed in the 2nd Year of George II, entitled, "An Act to enable such officers, mariners, and soldiers as have been in his Majesty's Service since his accession to the throne to exercise Trades." In 1782 the Company stated a case for the consideration of the law officers of the

Crown and ~~but~~ a decision was given against them. 112
(D'Aug Power
Surgeon in Chief of Surgeons)

117
At the time of the formation of a standing
army, & towards the end of the Stuart period
the ranks of the medical officers were

Regimental mate, hospital mate, regimental
surgeon, apothecary to a general hospital, surgeon
to a hospital, surgeon general. A ^{sharp} distinction
between physician & surgeon was made at the
time and ~~for 200~~ until the middle of the
18th Century it existed.

During Marlborough's campaign in Germany we
read that the C. in C. promoted a surgeon
to be a physician.

In 1764 Brocklesby wrote pointing out
how necessary it was that an army surgeon
should also be a physician.

At this time it was common for officers
of all branches of the military service
to hold commissions for sea service at one
time & for land service at another time.
(Longmore Wiseman)

The Georgian Era until the outbreak of
the war with France in 1793.

George II.

An Apothecary General appointed 1735. (p. 118)
Barracks first built in England 1739 (p. 121a)
Hospital accommodation. (pp. 121a, 128)
War with France Dettingen (122) (122b)
Rebellion of '45 (pp. 125a, 122c)
Campaign in Dutch Brabant (122d, 122)
Seven Years War (125, 125a, 126.) (127) (123)
America (128)
First Medical Board established 1756 (p. 130)
Allowance granted to each regt. for medicine (p. 130)
1768
Inspection of Hospitals & Discharge of H. 1758 (p. 132)
State of the A.M.D. (pp. 130, 135a) W. & W. 1777 (133a)
(Advance Medicine Department - p. 150 see...)
Pamphlet, Brackley, Mowbray, Bickerton, Hamilton
Elephanta.

Imperial Surgeon

Invaliding from Army 154.
Hospital Stoppages 134a

118

An Apothecary General was appointed to the Army under
patent first granted in 17th March, 1735 and afterwards
renewed on the 19th January, 1747, in favour of Mr
Garnier, "to supply the King and His superior officers
for the time being, and to furnish good and wholesome
medicaments to the Army." His pay was 10 shillings
a day. The principal emolument of the office were
however derived from the monopoly of supply. This
was up to June 1807, if not later, made by deputy.
(See post. p. 155)
(Close)

About 1747 the French ^{Army} adopted
Horse-sacks made of goat skin which they are
said to have copied from the Germans. The English
goat skin baggages appear to have been copied
from the French

Strength of Army under Georges I, II, III.
+ Victoria

Peace	1750 - 18,857	War	1745 - 74,187
	1793 - 17,013		1761 - 67,776
	1822 - 71,790		1777 - 90,734
	1845 - 100,011		1812 - 245,996
	1857 - 156,995		1856 - 275,079
	1866 - 203,404		1858 - 222,874

Engl. Hist. 9th 18

The Surge.

120

Surge I + II

In 1747 the army counted 61,000 men of all arms. The next year there was a great reduction for peace of 1748 caused the army to be reduced in numbers to 18,000 men. The Seven Years War however necessitated a considerable augmentation & we find that the army bore on its strength in Gt. Britain & on the Continent 67,000 men & there were also 37,000 men in foreign garrisons.

In 1763, three years after George III came to the throne the numbers fell to 17,000 men in England & 28,000 men abroad. The American war led to another increase followed at the end of the war to a reduction again to 17,000 men in England. These numbers refer only to British troops not to foreign mercenaries paid by the British Government.

† See p. 128. a.

In Nov. the Lord Mayor of London said by subscription £18,485 which was distributed
£5000 to the married + unmarried, £3000 to the sick at Newcastle, + the remainder is used
to the N.W.S. + now used in clothing + blankets. (Cumberland Museum)

in ~~an~~ ^{hospital} ~~medical~~ arrangement. In order to prevent the spread of infection, "the common and fatal consequence of one large and crowded hospital" and to some expense, a scheme of separate regimental infirmaries, each regiment ^{regiment} getting ^{regiment} barracks accommodation for his own sick, was adopted. A general hospital was also kept up at Brussels.

In 1745 When General Wade's army marched into Scotland, a general hospital was established at Newcastle. It soon became overcrowded with the usual ~~of~~ result, an outbreak of typhus fever which carried off many of the ^{serving} medical staff. After Culloden, DuRoi became the headquarters of the Duke of Cumberland's army. The sick & wounded were provided for in ~~separate~~ barns & houses set aside for the purpose. Sir John Pringle, the P.M.C., drew up a code of sanitary measures to be adopted. These included the separation of the sick, the prevention of overcrowding, the keeping of wards clean, the cleaning of all the joints in the town, and the immediate removal of the dead.

During the campaign in Dutch Brabant in 1747 the system of regimental hospitals was adopted with some success. A general hospital was however established at Maastricht where a large church had been set aside for the purpose.

In the following year 1748, the army was encamped at Nistelrooy and the accommodation for sick in small cottages was so insufficient that overcrowding resulted and an outbreak of typhus fever followed. The general hospital had been moved to Rensselaers ~~where~~ where "space & well aired wards" were the rule. Although many cases of malignant fever were admitted the disease did not spread. ^(See p. 112) These experiences probably led Pringle ~~to~~ ^{to} directed that when the army was in a fixed camp the regimental hospitals should be well separated and if a sudden influx of sick ^{took place} ~~occurred~~ in a general hospital, overcrowding should be avoided by dispersing the sick in several villages rather than keeping them in one. He added that "the danger from foul air can never be compensated for by diet or medicine."

Dettingen. - For some days before Dettingen the allies had been cut off from their base of supplies and the troops were on half rations. The French outmanoeuvred the allies and the battle was forced upon them. French lost 5000 to 6000 men the allies 2000. "After the battle was over the allies were still without victuals, drink, or tent to lie in, and had been many hours under arms. It was therefore necessary to fall back upon Stomun where their supplies were. The Earl of Stair, therefore, sent a trumpet to Marshal de Noailles, recommending to his protection the sick & wounded left on the field of battle, and they were treated by the French General with great care and tenderness. The desertion of the sick & wounded by the allies was however severely censured, the supplies should have been brought to the army, and the army was exposed to great ridicule for quitting ~~the~~ the field of victory for such a consideration.

George II

Pringle says in Dettingen in 1743 the English wounded were left on the field to the care of the French surgeons. John Rumbold, ^{Pringle's} Surgeon to George II was present at the battle & is said to have stated that the arrangements for the wounded were excellent. This surgeon introduced the application of ligatures early & freely. He practised of ^{"plentifully"} "bleeding" in cases of gunshot wounds & also gave ^{"Bark."} bark to the wounded. (See page 124 & seq.) 1745
→ We find great praise bestowed upon the medical arrangements with the Duke of Cumberland's Army in the Low Countries in 1748. These were directed by Mr. Middleton. The hospital was a model of medical administration. Separate and clean beds, with frequent change of linen, were provided for the use of the patients. Trained female nurses were employed and hospital store keepers & clerks furnished every requisite promptly and with regularity. * All were under the surgeons and this fact probably accounts a good deal for the excellence of the arrangements made.

In 1749 After the battle of Culloden. Bt. Army 2 hospitals 1000 beds, 2 of H. Gen. Dr. 1
5 Right L. Dr. 1000, 3 Right Dr. 1000, 3 Right Fortified, 56 Right of foot, 2000
5 Right L. Dr. 1000, 3 Right Dr. 1000, 3 Right Fortified, 56 Right of foot, 2000
Warrington, Clephane, Barker; Surgeon Genl - David Middleton Esq. Surgeon, Adam, Lennan,
* Fontenay, Napier & Mitchell; Apoth. General, George Buchanan, Esq. (Cumberland & Newcastle) 1767

Dr. Francis Horne, afterwards Professor of Materia Medica in the University of Edinburgh was with the army in Germany & the Low Countries in 1742 and the following years. He published in 1759 a volume of *Medicine Fact & Observation*, which notices a degree of gunshot wounds based on his experience during his military career. (Horne)

Horne's treatment of cases of gunshot injury was peculiar. He freely scarified the parts around the wounds in all cases. "All the wounds which he dressed at the battle of Dettingen" were treated in this way. He was, like his colleague Rand, and ~~his friend~~ a follower of Wiseman in his advocacy of primary amputation. He also practised inoculation for measles.

Another distinguished surgeon of this period was George Clegg. As Surgeon of the 22nd Foot he was in Minorca from 1744-1749. Minorca appears to have been a very sickly station for our troops. Clegg describes epidemics of small pox, cholera, dysentery, and intermittent fevers and of lesser diseases such as jaundice, heat (rash), urticaria (scars), and his work on "the Epidemic disease of Minorca" which appeared in 1751 was regarded by his contemporaries as one of the first excellence. During the siege of 1781 out of a garrison of 600 men, 560 were on the sick list. This was the garrison against which Cullen brought a French Army of 14,000 men. Clegg is said to have been the first to use Opium in the treatment of dysentery but there is no absolute proof of this. Like Pringle he frequently gave it in combination with Antimony. Clegg after leaving the Army became Professor of Anatomy at Dublin University.

During the latter part of the reign of George II 123 we were at war both in Europe & in America and there appears to have been a great contrast between the arrangements for the transport & care of wounded in the two countries. We read that in 1759 at the siege of Quebec ^{when his first attack failed} Wolfe had to leave his wounded & they were all scalped by the Indians.

George III
Fifteen years later, in the next reign, things had not improved for during the retreat after the Battle of Lexington in 1775 all the wounded who could not keep up with the Army were left behind & never afterwards heard of.

During the Seven Years war transport appears to have been arranged for by Contract. A Treasury Minute dated 1762 refers to an offer by a Mr. Gombas, then contractor for waggon in Germany, to transport the whole of his ^{horses, 500} waggon, drivers to ~~the~~ Government for the sum of £88,100. each. The proposal at that time being to form a public transport establishment. (see p. 125)

At Dettingen according to the original contract should have supplied 4000 waggon but only 50 were present.

Sir John Pringle, Bart.

1707 born the youngest son of the 2nd Bart, a native of Roxburgh.
educated at St. Andrews entered Univ. University in 1727.

1734 appointed joint professor of moral philosophy
in Edinburgh

1742. Private physician to the Earl of Stan, C. in C. of
the British Army in Flanders & also physician to the military
hospital in Flanders.

1744 through Duke of Cumberland's influence (successor to L. of W.)

received commissions as Physician General to his
Majesty's Forces in the Low Countries & as Physician
to the Royal Hospital. He then resigned his chair at Edinburgh

1746 accompanied Duke of Cumberland's Army to Scotland
& was present at Culloden.

1758 2. R. C. P. F. R. C. P. 1763
30 Nov. 1772 Elected President of the Royal Society

1774 Physician Extraordinary to George III who made him
a baronet. "Diseases of the Army" (2nd enlarged edition)

1753 Published
1782 died 6 April 1803.

Pringle studied medicine at Leyden under Boerhaave & Albinus, he
was a friend of Van Swieten. Became M.D. 1730 & went to study at Paris.

He went through the German Campaign & was present at Dettingen (1743)

After Culloden he was with the army on the Continent & returned

to England on the conclusion of peace in 1748. Starting
practice in London he remained physician to the Army and attended
the camps for 3 seasons

His portrait is in Pettipiece's Medical Portrait Gallery (vol II)

A study of Pringle's works show that he was
aware of many facts in connection with military
hygiene which have since been brought forward
as new discoveries by other writers.

He pointed out that cholera, dysentery and fever
often appear together in the same season, he
considered scum amongst troops to be largely
due to exposure to damp and "corrupted" atmosphere,
and showed the advantages of removing ^{such} troops
from marshy districts to the sea shore. He was
the first to point out the superior health
enjoyed by troops quartered in the higher floors
of buildings when compared to the health of
those living on the ground floor. He attributed

much sickness in the army to the air from manure;
nothing vegetable matter about the camp, such as
the straw on which the men slept; the fouling
of the ground of camp with ^{animal} excreta when dysentery
was prevalent, and overcrowding and bad ventilation
in hospitals, barracks, & ships, particularly when
these suffering with "putrid distempers" lived amongst the
other troops. He advocated improvements in the

Soldiers' ^{an increase in the amount of} in the clothing, shoes, bedding, and fuel. He recommends the frequent changing of camping grounds, advocates the system of messes for soldiers instead of having their meals apart and considered it desirable that they should ^{be allowed} ~~have~~ a certain amount of spirits or wine. He was the first to point out the advantage of ~~the~~ encouraging "divisions" or recreation amongst soldiers. He discusses the question of seasoned versus unseasoned soldiers at some length. He says a corps which has once been much weakened by sickness will never become properly fit for service until the sick & infirm are either dead or invalided and that those recruits which have suffered least from sickness during a campaign will be most fitted to undergo the difficulties of a second campaign.

The system of general, field, and regimental hospitals has been attributed to Phipps but there is no evidence to prove this. We do not find these mentioned by name before his time but it seems ^{more} probable that they were really the outcome of the experience gained during Marlborough's campaign in the early part of the century.

^{amongst Army surgeons & then} The great discussion of the merits & demerits of general hospitals as compared with field & regimental hospitals began with Phipps and continued until the end of our last war with France. Phipps writes of regimental hospitals that "they are of the greatest consequence" and should be maintained not only in the field but in winter quarters. (It should be noted that at this time a campaign during the winter was most unusual; most of the fighting took place during summer & autumn both sides retiring to winter quarters during the winter.) Phipps says "there is this advantage accruing from regimental hospitals, which is, that the several surgeons are best acquainted with the constitution and disposition of the ^{patients, as} ~~several surgeons~~ well as with the whole circumstances of their distempers." He then ~~proves~~ continues "as often as it has been tried I have observed it to be more successful than that of one large & general hospital."

In his description of ~~treatment~~ dysentery he says that he first bleeds the patient and then "vomited him" with ipecacuanha to which he often added tartar emetic.

In 1749

Chelsea Hospital.

Doctors - Ranby, Cheselden, Barneir, Graham.

Physicians - Pingle, Barker, Armstrong.

Surgeons - Ranby, Cheselden, Andrews.

(Amberland Papers
1767)

Pingle must be regarded as the founder of modern military medicine as distinguished from military surgery. He is also the first military hygienist of importance. He was amongst the first to see the important bearing of prophylactic measures on the production of disease. He communicated a paper "on Septic and Antiseptic Substances" to the R. Socy. for which he recd the Copley medal. He applied his principles to the prevention of dysentery & "hospital fever" which he first identified with typhus. ~~For this~~ His book, "Observations on the Diseases of the Army" is a medical classic & enjoyed an European celebrity. He also wrote on ^{typhoid} fever. To him is due the first attempt ~~at~~ forecasting of the general character of modern times. It is said, that, at his suggestion the Earl of Stair, when commanding the British forces in Germany proposed to the Duc de Noailles, the French Commander, that the military hospitals on either side should be regarded as neutral, and mutually protected. This humane practice was observed throughout the campaign.

Pingle was buried in Westminster Abbey. The year before his death he deposited in the library of the R. Socy of Physicians at Edinburgh, ten large folios of MSS., entitled 'Medicine, Annotations.' These contain a "Treatise on Air, Climate, Diet & Exercise." Unfortunately, by the terms of his gift, these MSS. cannot be published by the College. It is probable that much information concerning the state of medicine ^{in his day} in the army & in civil life has been lost in these manuscripts.

125 a.

1745

From
B.M.J.

JULY 17, 1897.

See also
Vol. 122 c.

In the July number of the *Caledonian Medical Journal* there is an interesting article by Dr. W. A. Mac Naughton on "The Medical Heroes of the 'Forty-five." In the *List of Persons concerned in the Rebellion of 1745*, published by the Scottish Historical Society, are to be found, it appears, the names of twenty-eight surgeons, two doctors of medicine, and two physicians who were drawn into the movement. Besides these, several members of the medical profession were led by their political enthusiasm to shoulder their muskets, and fight on one side or other as common soldiers. Not a few medical students also joined the rank of the combatants. Among the "rebel" doctors

Archibald

The medical arrangements for the army in Germany during the Seven Years War appear to have been very well organized & carried out. The transport arrangements were good & the medical staff was well selected. ~~and the~~ No doubt the experience gained by Pingle & others in the campaign of a few years before found fruit in the medical organization for this campaign.

The Seven Years War broke out in 1756 and ~~two years~~ ¹²⁵ ~~later~~ Hanover & Prussia being threatened, an English Army was sent to Germany. It consisted of six cavalry and six infantry regiments. The British columns were carried, at Minden, Wabing, Greinberg, Klover Kampfen, Kirch-Bendon and Wilhelmstahl as well as in many ~~other~~ skirmishes. We learn something about the medical arrangements of our army during this war from the paper of Donald Brown. He states 800 men were killed in the greater battles of the war and 500 died of wounds. As for nothing of the large numbers who lost their lives in the innumerable smaller skirmishes. Being a physician he gives no particulars as to the wounded but says that about 25,000 sick passed through the regiments and general hospitals. The general hospitals received no sick whilst the troops were in winter quarters. When the army took the field, the men, on being taken ill or wounded, were either put into sick beds in the rear of the regiments, or into houses appropriated as regimental hospitals, under the care of the regimental surgeons, where they remained until transport was available to carry them to the nearest general hospital, which was generally from 12 miles to 40 miles in the rear of the army. In May 1761 all the British general hospitals were collected at Goslar except the hospital at Alsfeld which ~~was~~ ^{had been} taken by the French. In the first half month of 1761, 4,500 men were discharged to duty from hospital, in the last six months some 1,500 men returned to ~~the~~ duty. In the beginning of the

To P. 126
in 1762 ~~the~~ a number of officers were sent down for

1758 Inspection of Hospitals and Deputy Inspectors (first appointment). (S. J. D. Sign. Preface)

In 1757 owing to the exertions of Pitt the strength of the Army amounted to about 100,000 men. Four thousand of these were invalids and it is interesting to note that ⁱⁿ these were actually many of the garrison duties only. This system of invalid garrison lasted throughout the war.

~~In 1748 after the burning of Aix la Chapelle~~

Pay of Medical officers to a regiment of Foot in 1757

	Substrate		P _{avg}		P _{avg} 4000 ft		G _{avg}	W _{avg}	Area
	day	$\frac{W}{S}$	day	$\frac{W}{S}$	day	$\frac{W}{S}$			
Singer	3 $\frac{1}{2}$	54.15.0	4 $\frac{1}{2}$	75.0.0	3.13.0	4 $\frac{1}{2}$	12/2	9 $\frac{1}{2}$	13.7.0
Singer's net	2 $\frac{1}{2}$	36.10.0	2 $\frac{1}{2}$	45.12.6	2.5.8 $\frac{1}{2}$	2 $\frac{1}{2}$	7 $\frac{1}{2}$	8 $\frac{1}{2}$	6.1.8 $\frac{1}{2}$

+ not off. reckoning
Singers pay same as ^{adjutants} ~~musicians~~ a little more than an organist but less than choir.
Less than Drums, much less than Chaplains.

Small

X. Dr. Moore - an Army Surgeon who wrote in 1764

days, 'In time of war when the regiment is ordered on actual service, the surgeon & his staff always go with it; and their duty is to take care of the sick and hurt in the same manner as in the time of peace. - In their own Regimental hospitals, in Spring, ~~and~~ or Summer, when the regiment takes the field, they encamp with it, and have ~~generally~~ ^{commonly} some tents pitched in the rear of the regiment, for the reception of such as may fall sick, ^{or be wounded,} till an opportunity offers of sending those ill of fevers, fluxes, or other dangerous disorders, ^{or who have received} or are any how rendered unfit to do duty with the regiment, - ^{to the nearest} General Hospital.

We know nothing of the first establishment of military hospitals, either fixed, or movable, General A regimental, in the British service, but ^{more} speaks of them better as well known in his time and says he can find no mention in any annals another of the particular manner in which these military hospitals were conducted.

* Ballinfall, converted from Morris' "Health of Soldiers" 2nd Ed.

Richard Brockelsby, physician, b. 1722 d. 1797. son of an Irishman
was born at Newcastle & Limerick. He was a Quaker. Studied in
Dublin & Göttingen. He went to Leyden & there took his M.D.
1751 L.R.C.P. 1754 M.B. Dub., M.D. Camb., 1756 F.R.C.P.

In 1758 he was appointed physician to the Army and served in
Germany. In 1763 he settled in practice in London.
On friend of Burke & Johnson. He gave the famous
and offered Johnson a pension of £100 a year. Brockelsby
describes a dinner at Brockelsbys (p. 459).
He wrote on "the Mortality among Horned Cattle" 1746.
"Reflections on Antisepsis & Miasmatic Miasm" 1749.

with this application of miasm to the cure of disease.

Hansen's oration in 1760.

In 1764 appeared his great work "Economical &
Medical Observation, in two parts, from the year 1758 to
the year 1763 inclusive, tending to the improvement of
military hospitals and to the cure of camp diseases
incident to soldiers; 8vo Lond. This was the first
great work on military Hygiene. He laid down the
necessity for plenty of air in soldier rooms, regulation
for Field Hospitals, and insisted upon the necessity of
his absolute command of his hospital.

He became an F.R.S. fought a duel with Dr. (afterwards
(Sir) John Elliot. Died in 1797 and was buried in
St. Clement's Church. His portrait was painted by Copley
& engraved.

Brockelsby an Army ^{physician} surgeon who died in 1764 & a 1798
work entitled "Obs. on Military Hospitals & Camp Diseases".
He was anxious to improve the class of men who then
entered the Army as surgeons and suggested that medical
commissioners which were at that time purchased should be
raised in value to, & fairly & openly sold for £500 to
£700 and that, in addition, all candidates should undergo
a strict examination as to their professional acquirements.

He draws the following picture of the miserable
accommodation provided in his time for the sick
soldier:—"Another sort of regimental infirmary, which
is frequently as bad as a large crowded hospital, and
which I have much objection to, is as follows:—A small
old house, with low ceilings; a large kitchen or
common room below stairs; and no other apartment
in the house half so big as that kitchen; small
large windows without apertures, designed to keep
the inhabitants warm in lieu of fire. Most commonly,
the habitation hired for an infirmary has for some
time been altogether unoccupied, with the walls
all damp, the boarded floors half rotten, and the
roof in several parts open above. In a few words,
at best it was a desolated habitation, unfit for

containing a wretched family of seven or eight people, and now destined to hold the sick of a whole regiment. I have, indeed, seen such a cottage stuffed with forty, fifty, or sixty, men with servants or eighty poor sick soldiers, all lying back to back, so closely confined together within their own stinking clothes, foul linen, &c. that it was enough to suffocate the patients as well as others who were obliged to approach them."

Brookelay in his book strongly advocates the observance of cleanliness, good ventilation, good diet, and regular exercise in the army.

Cleghorn, Brookelay, Pingle, Home, and Moore were in the habit of performing p.m. examinations on their military patients. This was many years before the practice became at all common in the civil hospitals.

Brookelay had great faith in wine in the treatment of fevers giving as much as 3 joints daily to his patients.

Perhaps one of the earliest ^{English} writers on Cholera was Thomas Sindstone who published in 1787 his "Essays on Hepatitis and Spasmodic Affections of India" based upon his experiences as Army Surgeon whilst serving for many years in that country. He describes

an epidemic of Cholera, but not by that name, 129 which occurred at Madras in 1782.

American War of Independence.— We know little about the medical arrangements during this war but both sides suffered severely from sickness and privation. Smallpox and typhus were very common in both armies. As long as England held command of the sea the British troops were much protected from foreign supplies and medicines were easily landed under the protection of our fleets and when our troops were shut up in New York a other towns near the coast supplies were in this way brought to them. When however our fleets were overpowered by the appearance of de Jervis French Fleet ships took on a very different complexion. Our troops in York town, shut in by the surrounding rebels, and cut off from supplies from the sea, by the presence of an overwhelming inimical fleet, soon began to suffer from want of food & want of medical necessities ^{and} ultimately had to surrender. England lost America ^{State} though the temporary loss of command of the sea, did not deprive us of the history of the period that the English command of the sea is so necessary for the medical arrangements of an army overseas as it is for the army as a whole. Kente tells us that during this war "Regimental Surgery was in a very defective state, the surgeons being either appointed by purchase, or taken from the militia who had been recommended by the Colonels of Regiments without being any proof of medical qualification."

Capt. Stearns an officer in the English Army who fought in the American War of Independence says that at Brimley's Hill our troops attacked "in the middle of a hot summer's day encumbered with three days' provisions, their knapsacks on their backs, which, together with cartridge-box, ammunition, and fire-locks, may be estimated at 125 lbs. weight." The weight carried appears to have been extraordinary. In 1846 the soldier carried a full marching order from 60 to 65 lbs. (See page 108. for weight carried in 1762.)

The immediate time of "Gentle Doodle" was composed by a British Surgeon Dr. Stuckpole at Albany during the American War of Independence.

Hamilton says that although many ^{more} men of promising abilities joined the service in 1783 yet many ^{of} finding Hamilton mistaken in the choice they had made, soon retired from a service they could not remain in with credit to themselves.

He gives interesting particulars concerning the pay of hospital mates, &c.

Their full pay is 3/6 a day for 365 days, viz 3-17-6

Subsistence issued at 3/4 a day 54-15-0

Postage stopped by Govt, 1/4 per cent 3. 3. 10 1/2

Charges Hospital one day's full pay 8. 6

Warrants & contingencies, 2 days pay 7. 0

Agency 2 d per £ 10. 7 1/2

Remainder of one year's arrears at 6/4 a day 4. 17. 6

Total 68. 17. 6

Royalist and Roundhead Army Physicians
and Surgeons.
In former articles which have appeared in

Royalist and Roundhead Army Physicians and Surgeons.

In former articles which have appeared in this Journal the writer has dealt with the history of the British Army Surgeon down to the date of the ^{Restoration} of Charles II. ~~Before~~ ~~leaving this period some account of the more celebrated Army Physicians and Surgeons of the time may be of interest.~~ In the account of the Great Civil War ~~some mention~~ was made of some of the more prominent of the medical men employed on ^{each} ~~both~~ sides during the war. We now propose to deal in more detail with the lives of Wiseman, the great Royalist Surgeon and of Sir William Petty the eminent Parliamentary Physician, and to note also in passing Sydenham's connection with the Parliamentary Army.

Now one can read Wiseman's history without feeling a desire to know more about his personality. Although he was far in front in the art of surgery of his time and a man of some prominence it is surprising how little is ~~known~~ gathered about his life. Sir B. W. Richardson wrote a short ^{biography} ~~monograph~~ of Wiseman in his "History of Medicine" ^{a better account} ~~but the best biography~~ is that written by Sir Thomas Longmore.

$$\begin{array}{r} 405 \\ 212 \\ \hline 42 \end{array}$$



The weather of the 21st. Fine.
 A warm day. The sun shone
 for 2 1/2 hours. The wind was
 from the south. The temperature
 was 70°. The humidity was 70%.
 The barometer was 30.0. The
 moon was visible in the
 evening. The stars were
 visible. The sky was clear.

In the middle of the wall of the Temple of
 mounted to 250 mm before the end of 1662
 and another 250 mm by outside.



705
 12
 42

The most distinguished man connected with the medical service of Cromwell's Army was Sir William Petty. He was ~~born~~^{in 1623}, in humble life, the son of a clothier, at Rumsey in Hampshire. He early developed rare intellectual abilities. As a youth he went to sea but was soon stranded in France, where he contrived to ~~maintain himself~~^{earn a living} as a petty merchant whilst he educated himself at the Jesuits' College at Caen. He soon became noted as classical scholar, linguist, mathematician, astronomer and navigator. At the age of 20, in 1643, he went to Holland and spent the three following years in the study of medicine at Utrecht, Leyden, Amsterdam, and Paris. Although often in great poverty, ~~and destitute~~^{in Holland} he became intimately acquainted, ~~with~~^{in Holland} the Earl of Newcastle, Sir Charles Cavendish, and other distinguished refugees and he found him corresponding on terms of equality with some of the greatest mathematicians of the time. In 1649 he went to Oxford and at once took his degree as Doctor of Physic. He then entered at the College of Physicians in London. In 1650, he became Fellow of Brasenose, and ~~then~~^{also} Vice Principal, ~~and~~^{the} also held the chair of Anatomy. He remained in Oxford until the end of 1651, ~~and~~^{and} during this time he occasionally visited London when he held the appointment of Professor of Music at Gresham College.

Morris notes that extremes of heat & cold are not

vol 1

Company of Indians examine for Army entrance p. 117
 Landing at Quebec. 1759 p. 123 vol I p. 134 vol III 435 vol III
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 1787 p. 130 I

Monro notes that extremes of heat & cold are not
 unhealthy but when either are combined with moisture
 a condition suitable to the production of disease occurs.
 In winter he pointed out the great diminution there
 would be in the number of sick if the soldiers were
 provided with warm flannel waistcoats, jessels, gloves &
 neck cloths. Incidentally he notes the first introduction
 of trousers, or breeches with legs into the army.
 This occurred amongst the 4th troops ^{who were engaged} during the war in
 North America. He sums up the advantages of trousers
 saying that they had been found of great service during
 in defending them against cold in winter, and against the
 bites of flies, insects, and of serpents in summer.
 During the war in Germany he says the soldiers' blankets
 were collected together covered with a oil cloth &
 carried on the back of horses. In this way regiments
 always had their blankets with them. One horse for
 company was provided. Care should be taken to
 choose a dry site for a camp. He ~~found~~ ^{saw} out that
~~that~~ it was customary to build huts when encamped
 for long in any one place & saw the floor of the
 huts was frequently dug up and found out this
 distribution of the soil frequently gave rise to much
 disease amongst the troops. He advocated exposure

cleanliness is quarters and barracks, both of the women
themselves & of the ground around and things that
in warm climates there should be more space given to
the soldier than in cold. Camps should avoid the first
new frosts, swamps or malarious. The remarks on
field privies are worth noting, "large pits ^{ought to}
dig in proper places, and these dug ^{should be}
^{filled up} ^{with earth}. An officer should be deter-
red from visiting the men's quarters daily. To avoid any
a liberal allowance of vegetables ^{& fruits} is recommended &
fresh meat provided. As beverages he recommends beer,
cyder, wine, and spirits to which a little cream of
tarter & sugar has been added.
Morse was the first to point out that when soldiers
were sent abroad great care should be taken to
arrange that they should reach their destination at
the most healthy period of the year. He gives notes
on the best time to embark troops for America, N.W.
Africa, Mediterranean, East India & the Dutch East
At this time when expeditions were being fitted out &
pressed abroad it was a common habit to make up the
strength of the troops by recruiting from the streets and
gaols. Morse was the first to point out the danger
there was of these recruits infecting the other troops who

infectious disease. To avoid this he suggested that the new recruits should be kept under observation for some weeks in a prison town and all their old clothing be destroyed previous to embarkation. He then goes on to speak of the care & the order in provisioning and preparing transports - as the case of the hospital ship the voyage. ~~At his~~ His suggestions ^{might have been} applied to ~~the~~ the present day written today they are so advanced. He says some ^{fine} rules for preservation of sickness amongst the troops in warm climates. They include the careful selection of sites for barracks & camps, the necessity for temperance in eating & drinking, the avoidance of exposure at night and all violent exercise in the sun, ^{the prevention of} commencement to keep the men cheerful, and the advisability of cleanliness by frequent bathing in the early morning. Officers were not to march their new dring the heat of the day. Men on duty only were to be posted in sheltered places. Men on duty only were to sleep sheltered from the sun and when soldiers had to sleep on the ground they should first cover the ground with their blankets & some straw & be careful to cover themselves from the heavy dew. He says the ideal site for a camp is "dry, high ground, exposed to the wind; where there is a free current of air, and where he is at a distance from marshes, stagnating water, and large woods, and near where there is plenty of good water."

All camps should be kept very clean. All refuse should be buried outside the camp. When a camp becomes undesirable its site should be changed.

He also lays down rules for medical organization in war and ^{desirable} ~~advocate~~ ^{regimental}; ~~field~~ ^{or} flying hospitals (field) and general hospitals. He considers a ~~happened~~ ^{happened} with ^{medical} supplies, instruments &c should accompany the troops and under the charge of surgeons. Referring to the sites for hospitals he repeats what he has said about the sites for camps and gives hints regarding the selection of public buildings as for use as temporary hospitals in war time. In every case he advocates great care in the provision of sufficient proper ^{extreme} accommodation. Infectious cases were to be isolated and surgical & medical cases separated. Straw beds were the best because they could be easily destroyed whereas feather beds retained infection. The wards were to be kept scrupulously clean, the patients bathed & clothed in clean hospital clothing, their own clothing being taken away to be washed, and wards were to be provided with warm vinegar. He says in this way the generation of infectious disease in hospitals would be prevented. Ventilation of wards was to be carefully ^{seen to} ~~necessary~~ & if necessary openings made in the ceilings into a wooden tube going up to the chimney of the ward above ^{if} ~~it~~ recommended. Open ^{fireplaces} ~~doors~~ were to be preferred to closed doors.

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Memo tells us that diet board were hung up in the hospitals in Germany in this form.

Regiment	Mens Names.	Diet F. M. L.	Wine $\frac{1}{2}$ pints	Brandy ounces	Milk $\frac{1}{2}$ pints.	Sugar oz.
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The diets were Full, middle, and Low.

Full diet

Breakfast

One pint of water
or rice gruel.

Water gruel was made
with 3 or 4 oz of
oatmeal, some salt,
sweet oil, and 2 spoonfuls
of wine.

Rice gruel made with
2 ozs rice, one spoonful
of flour, a little salt &
yeast.

Dinner

One pound of
boiled fresh meat.

Supper

As
breakfast.

Middle Diet

Same as full but Dinner consisted of one pint
of broth, half a pound of boiled meat

Low Diet.

depended on the patient's appetite. Breakfast + Supper
as above
Dinner one pint broth, or half a pint of Panada,
with 2 spoonfuls of wine and an ounce of sugar.

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Moore insisted on the necessity ~~of~~ for full military
rank for commissioned ~~for~~ medical officers. I give his own
words. "It would be right to establish some military
rank for every commissioned officer of the hospital
in service, and to settle the same subordination in
the physical as in the military department. By
these means, the service would be carried on with
greater order, and more advantage to the sick."
He also advocated that medical officers should sit
on courts martial if sufficient other officers were
not available. Failing this, he advocated the
appointment of a military inspector or commander
with sufficient officers to form a court-martial
to every ^{general} hospital in order to ensure the maintenance
of discipline amongst the patients, particularly
the convalescents. ~~Responsible officer~~ His duty also would
be to take care of the arms of the patients.
With regard to diseases prevalent in the army Moore
recognized the similarity between plague and typhus fever
a point afterwards pointed out by Murcheson and considered
them both to result from similar causes, filth, stagnation,
and general unsanitary surroundings. It is interesting to
note this treatment ^{of dysentery} adopted in the army in his time the
In recent cases, in full-blown patients, bleeding was done, and
in all cases the preliminary treatment was
emetics + purgatives. The emetic most used was tartar emetic and
Ipecacuanha. With regard to purgatives it is interesting to
note in the light of

The present day advocacy of magno. sned. in the name
 that Mours says. "I am convinced that these purgative
 medicines which operate ^{with} the greatest ease to the patient,
 and make the freest discharge by stool, will always
 answer best in recent dysenteric cases; and that the
 excessive distress purgatives which ^{occur much} cause griping, and
 pain, and sickness will in general do harm." He says
 "Mr. Francis Russell, Surgeon to the British military hospital
 in America, who was formerly Surgeon to the island of
 Annam, was the first person who informed ^{me} (in the
 year 1757) of the use of the sal catharticum amarum
 in the dysentery; he told me, that the year before (1756)
 the dysentery had been very frequent and very fatal at
 Gibraltar; and, after trying variety of medicines, he had
 found nothing give ^{more} relief, or contribute more
 to cure, than repeated doses of those salts."
 Mours tells us that this treatment was very successful
 in his hands. He gave Sal catharticum amarum,
 with manna and sweet oil on the first day &
 repeated daily for four days if necessary.
 My ^{not therefore} reason to claim for Mr. Francis Russell,
 Army surgeon, the credit of originating the
 treatment of Acute dysentery by means of saline
 cathartics. With regard to the use of opium in
 dysentery Mours wisely says that it is only indicated in
 small doses after 12 or 14 days have elapsed. The diet given
 was the low hospital diet already mentioned.

Mours also deals with cholera morbus, inflammation
 fever, small pox, typhus, ^{apex} chest disease, venereal, & the like
 and ~~all~~ his remarks make on are fruit with the
 treatment followed in the army in those days.

In Mours time the hospital mates
 appeared to hold very much the position now
 occupied by assistant surgeons in India. In a
 general hospital two were always on duty after
 and performed the duties now done by the orderly medical officers.
 the ~~movements~~ work was done. They compounded the
 medicines for the use of the sick, and usually were on
 duty ~~lined~~ in the hospital. We read that whilst
 in Germany "a joint of meat, roasted a broiled, for
 dinner, and a bottle of wine, was allowed to the
 orderly mates, by Lord Frank's order, that they
 might not absent themselves from their duty."
 The hospital mates also kept the record of the cases.

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George II for the Army Medical Department 130
A distinctive administrative organization was for the first time
introduced (Lord Cadogan being one of the first to be
in 1756 by order of the Duke of Cumberland

Board was established consisting of physicians belonging
to the hospitals of H. M. forces, the Surgeon, the
Principal Surgeon, & Purveyor to the Hospitals who had the
greatest share in charge conjointly to direct certain
rules for regulating all hospital matters. In order that
this part of the military service (including medicine, surgery, & other duties for the sick
might be carried into execution with ability, regulations
despatches. (Claude.

1787 Hamilton says that £30 a year was allowed by Government for the
rent of a house or a tent in the regimental hospital. 6d a
day was allowed for a nurse (female). Each private paid one
penny a month & each N.C.O. & having three fast days for medicines.
£100 also allowed for each year for medicines. When in camp
£100 also suggested a chest of medicines in addition.
No case books. They were first recommended by Hamilton.
N.C.O. drew horse allowance when in camp (£4.3 in 2 years)
He got £1.15 for every soldier inoculated for the small pox.
In some regiments subalterns got one, captains 2, majors 3, lieut.
col. 5 and colonels 10 guineas yearly or the augmentation of
of the surgeons &c.
Surgeons of the line had double commissions at this time.

George II for the Army medicine department 130
A distinctive administrative organization was for the first time
in 1756 by order of the Duke of Cumberland

Board was established consisting of physicians belonging
to the hospitals of H. M's forces, the Reg. Genl, the
Principal Surgeon, & Purveyor to the Hospitals who had it
upon them in charge conjointly to digest certain
rules for regulating all hospital matters. In order that
this part of the military service (including medicine, Reg. Genl & other divisions for the sick
might be carried into execution with ability, regulations
despatched. (Claude.

Board appears gradually.

Dr Hamilton in 1787 that in the regular army & in the militia the
surgeon's pay was 4/- a day and the surgeon's mate 3/6 a
day. A deduction of 1/- a day was made from the surgeon's pay
and 6 d. a day from that of the surgeon's mate so that
in reality the substantive pay of each was the same
namely one guinea a week. The surgeon's commission was
signed by the Secy. of State, but the mate only received a
warrant signed by the colonel of his regiment. After
referring to the expense incurred by the surgeon of a regiment, he
adds that the pay was "neither adequate to the trouble of the
office, the expense of a liberal education, or what is of equal
consequence, is not such as to encourage, nor of any professional
ability to enter into it." He also says that few who deserve the
name of medical practitioners will engage in (the army) till regulated
terms are placed upon a more honorable footing & their rank promoted as well
as their pay increased.

George II for the Army Medical Department 130
A distinctive administrative organization was for the first time
introduced (Lord Brougham says of this period)
In 1756 by order of the Duke of Cumberland

Board was established consisting of physicians belonging
to the hospitals of H. M's forces, the Surg. Genl, the
Principal Surgeon, & Purveyor to the Hospitals who had it
upon them in charge conjointly to digest certain
rules for regulating all hospital matters. In order that
this part of the military service (including medicine, surgery & other divisions for the sick
& Board officers gradually to have been dissolved &
the former merged in the appointment of the Principal
Hospital Surgeon to the new appointment of
Inspector of Regimental Infirmeries. (Hennon)

Dr Hamilton in his "Duties of a Regimental Surgeon" says that
in 1787 that in the regular army & in the militia the
surgeon's pay was 4/- a day and the surgeon's mate 3/6 a
day. A deduction of 1/- a day was made from the surgeon's pay
and 6 d. a day from that of the surgeon's mate so that
in reality the subsistence pay of each was the same
namely one guinea a week. The surgeon's commission was
signed by the Secy. of State, but the mate only received a
warrant signed by the Colonel of his regiment. After
referring to the expenses incurred by the surgeon of a regiment, he
adds that the pay was "neither adequate to the trouble of the
office, the expense of a liberal education, or what in equal
consequence, is not such as to encourage men of any professional
ability to enter into it." He also says that few who became the
surgeons of medical practitioners will engage in (the army) till regulated
pensions are placed upon a more honorable footing & their rank promoted as well
as their pay increased.

Senje III

Frame in 1793

At the beginning of the war against ~~France~~ the army expenses were (according to books) as follows.

		British		Irish	
		Subsistence	Full pay	Full pay	Subsistence
Cavalry	Sergeant	4/6	82.2.6	6/-	109.10
	Sergeant's mate	3/-	54.15.0	3/6	63.17.6
Foot Guards	Sergeant	3/-	54.15.0	4/-	73.0.0
	Sergeant's mate	3/-	54.15.0	3/6	63.17.6
Marching Regts of Foot	Sergeant	3/-	54.15.0	4/-	73.0.0
	Sergeant's mate	3/-	54.15.0	3/6	63.17.6
Militia		Half pay			
		Home	Fort	Home	Fort
Sergeant		2/-	2/-	2/-	2/2

In 1797, Surgeons of pay from officers' salaries were abolished. Surgeon's pay was raised to 10/- a day & his mate (now called assistant) to 5/- a day. (Lorne)

Surgeons

Answer in June
£ 5. 5
20. 1. 9
5. 4. 5
a year.
- answer 13. 13. 10
5. 3. 6

On 5th Aug. 1768 the King sanctioned an allowance of £30 a year to each Regiment of Foot in Great Britain in order to limit the contingent expenses for hospitals, messes, and sick men. A circular was issued by the Sec. of State for War, Lord Bannister, & all C. Os of regiments of infantry, saying "That as this allowance was sufficient ample to bear any expenses that can properly occur for the relief of the sick, & being considered an essential service to the regiments, His Majesty had no doubt of the Colonel's careful application of it to that service, agreeably to this most ~~gracious~~ intention &c."

It is probable that this arrangement continued until the army was supplied with medicines in kind by order in 1795. (Clode)

On the same day, and regt. of Cavalry or Light Dragoons was granted an allowance of £20 a year to make up the cost of attendance & medicine over and above that allowed by Hospital Stipends. (Clode.)

Prior to 1771 the private orlovie had debited
from his pay $\frac{1}{2}$ d weekly for medicines and 8 d
a year "Shropshire money." (Nesbitt)

The department of Inf. General & Inspector Genl of Regiments
Infirmarys were separated in 1793 (Ort). (Mr Gunning became
Surg Genl. & Mr Keate Insp. Genl.). In 1794, Sir Lucas
Peppys was appointed Physician General and the three officers
constituted the Medical Board which existed until March 1798
when it was dissolved. (Clode)

On the eve of the war with France ¹⁷⁹² the British army only
amounted to 57,000 men all told, at home & abroad.

In 1796 in India an Army surgeon led a company
out of action and afterwards commanded a regt
on its way voyage to England.

In 1797 Sir Benjamin Brodie & his brothers raised a company of volunteers.

1758. Inspectors of Hospitals and Deputy I. H. ¹³²
first appointed. The first to visit and control the
hospitals in Gr. Britain, the latter to remain
stationary at important points or to accompany
the march of armies in the field. Not generally
attached to any one hospital.

1793. By H. M.'s order, through Sec. of War, in Oct. 1793 a board
was formed. It consisted of a Phys. Genl., a Surg. Genl., & an
Inspector of Regmt. Infirmarys (see p. 133)

1794. The first General hospital established. This
was in connection with the Duke of York's army in
Flanders. All the wounded who required protracted
treatment were transferred for the regimental
hospitals to this general hospital. It was under
the charge of physicians, chosen at that time, from
the civil profession. Duguid states on the
authority of Jackson & Dr. J. J. that the innovation
was unfortunate for both the mortality & the
expenses were greatly increased.

1796. ^{From 1793 (Fanning)} Until the close of 1796 the regimental surgeon
seconded by an assist. surgeon received a sum proportioned
to the strength of the regiment on condition of supplying
all the necessary medicines. It was then decided that there

should be supplied by the Apothecary General.
As compensation to the Surgeons their pay was
augmented, ^{and regularly paid} their assistants were raised to the
rank of commissioned officers taking the title of
Assistant Surgeons. Surgeons were to rank with Captains
when choosing quarters and to be entitled to a retiring allowance. (See Vol. 16 of the Gen. Ledger, 16th Decr 1796)

2 Dec 1798 The pension to officers widows was increased
to Surgeons of the Regiment widows £26 per ann
Staff Surg and Apothecary's do £26
being the same rate as that of a Lieutenant's widow. (Irene)

Pension to this by Royal Warrant dated 26 July 1797
A Surgeon's widow got a pension of £16 being the same as
that paid to the widow of a chaplain, Cornet, ensign,
captain & so on.

Half pay is not mentioned until after the Revolution, Vol. of Hist. of Gen. Ledger, 16th Decr 1797
Surgeon's pay & Chelsea Hospital got £100 a year.

1798. A Warrant of this date directed that Assistant
Surgeons should be promoted from ^{the ranks of} ~~the ranks of~~ Hospital
Assistants and Surgeons from Assistant Surgeons.

1798 Regimental Surgeons became more responsible for medical treatment
for the convenience of the expenditure of their hospitals

1798.

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During two last wars of the century the medical
service of the Army was conducted by a Supreme
Board composed of the Physician General, the
Surgeon General and the Inspector General of
hospitals. After 1798 each of these exercised
certain limited functions and had certain powers
of patronage over nominations and promotions.
The Physician General had charge of all nomination
& promotion of physicians, he inspected medicines
furnished to the Army by the Apothecary General
whose acts he controlled jointly with the Surg. Genl.
He presided at examinations of candidates for
positions in the Army & the military hospitals.
The Surgeon General had the appointment & promotion
of the Surgeons in his Dept. their distribution
amongst hospitals, Camps, and military districts.
Requisitions ~~on the Apothecary General~~ for all
surgical requisites passed through his hands &
he controlled the acts of the Surg. Genl. as far
as they referred to Surgery.
The Inspector General of Hospitals had to do with
the organization of hospitals & the appointments,
promotion & distribution of Apothecaries & their
deputies, assistants, nurses and hospital attendants.
He also had charge of the transport of medical
supplies.

Diagram - View of medical service of the Army 1802.

One not infrequently hears it recommended, ^{amongst army men} that when men are sent to hospital suffering from the results of their own indiscretion they should be made to pay higher hospital stoppage than those men in hospital for ordinary diseases. At least one Secy. of State for War has recommended legislation on these lines. That the idea, good or bad, is not a new one is proved by the fact that previous to 1791 he finds that in Canada Artillery men sick with these diseases were obliged to pay a fine of 10 s. 6 d. At length a Commanding Officer made enquiries as to origin of the fine & the legal authority for enforcing it. It was then found that the custom, formerly general, had been long abolished in England, as well as in other places, "as tending to induce the soldier to conceal his complaint, or apply to quacks for a cheaper cure; both of which may be prejudicial to his constitution." (Hist. R. Reg. of War)

1798 Reg. laid down every Physician to have a diploma or degree & all Surgeons must pass a medical examination before getting his commission.

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to the Army as well as to hospitals and in conjunction with the Surgeon General disposed of the classes of officers of the Army relative to wounds & loss of limbs. This division of duties did not work well, it was cumbersome & unwieldy. The Surgeon General altho. responsible for the functions of Physicians, inspectors, hospital assistant & apothecaries had no power of presenting them to Government.

Expense of the Medical Board in 1799 & 1806

	1799	£ s d		1806	£ s d
Physician General	730.0.0			730.0.0	
Surgeon General	730.0.0			730.0.0	
Inspector of Hospitals	730.0.0			730.0.0	
Agent & Treasurer	669.6.3		Comptroller of Hopt. Accts.	730.0.0	
Contingent expense.	556.5.0		Three assistants	1,435.0.0	
			Treasurer	670.0.0	
			Contingent expense	2,423.3.3	
Total	3,415.11.3		Total	7,448-3-3	

By a regulation of 1798 the regimental surgeon was appointed director of the hospital of his regiment. Each sick soldier was stopp'd 9 d. a day (hospital stoppage afterwards raised to 10 d.) of his pay. These hospital stoppages were handed over to the surgeon

In 1799 the staff of the Army included one Inspector of Hospitals, one physician, one surgeon and two assistant surgeons for Scotland; two physicians-general and one staff physician for Ireland; and in England, a physician-general, a surgeon-general and an Inspector of Hospitals. The three last named constituted the Medical Board.

At this time the following were the ranks in the Army Medical Department:—

Surgeon-General, Surgeon to a hospital, Apothecary to a General Hospital, Surgeon to a regt, Hospital mate, Regimental mate.

+? The Surgeon to a Hospital was usually promoted from the apothecaries. Surgeons drew 4/- a day. Apothecaries 10/- per

Although the Medical Board administered the Department there was no recognised office establishment, the Inspector of Regimental Infirmaries receiving £100 a year & 10/- a day to cover all expenses. Soon after the Board had been done away with we find the office establishment consisted of one clerk a secretary and two junior clerks. Some idea of the amount of work done by the D.G.'s & their clerks may be gathered from the fact that in the five expeditions were fitted out and sent to Flanders, Toulon, Minorca, Portugal, the West Indies, the Cape of Good Hope, the French Coast, &c.

+ Hamilton

At this period and indeed until Sir James McFiegan became D.G. little attention was paid to professional details by the heads of the Department, their energies being chiefly directed to the financial side of the Dept, the supply of M.O., and matters connected with the General Hospitals and a Supply Depot.

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Low position held by

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He never referring to the Army Surg. previous to his own two days of him. "He must have been indeed possessed of a most glowing enthusiasm, and an utter contempt for self-interest, who would have buried his talents & his industry in a situation where obscurity, poverty, & neglect, spread all their miseries before him. These were, for years, the portion of the Army Surgeon; the situation was looked upon as the lowest step of professional drudgery and degradation; and if a man of superior merit by chance sprang up in the service, or entered it for temporary purposes, he soon abandoned the employment for the more lucrative, the more respectable, and the less servile work of private practice. — The school was good but the best & most natural feelings of the human heart were too deeply lacerated to permit any independent man long to continue a pupil."

from 134

and were used by him for providing comfort & indulgence for the sick in hospital. He had to account for the money by a weekly account which was audited by the C.O. and the paymaster of the Corps.

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Tracts of military life by Walter Henry, Esq., Surgeon to the Forces, First Class. (2nd Ed. London Will. Pickers 1843) This book, of a medical officers' experience in the Peninsula, India, St. Helena (during Napoleon's captivity) and in Canada during the latter years of the last century & the beginning of this — we have a few side lights thrown upon the life of a Surgeon in those days. He says (p. 16) "There was little difficulty in those days for a medical youth, duly qualified, to obtain a commission in the Army; for Talavera, and other bloody fields — and camps or cantonments on the unhealthy banks of sluggish rivers, — had caused a great demand for doctors; moreover they were far less numerous than those now. With my credentials from Surgeon Hall in my hand, I went to the Horse Guards, and from thence was referred to a Tribunal, sitting at No 4, Berkeley Square. The wise men on the medical bench there, having examined me, and reported that I could feel a pulse and physis, as well as bleed, I was in due course gazetted "Hospital Mate for general service to

Notes

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at

any

"Corinthian, at this time, contains nearly a thousand British sick & wounded, besides Portuguese."

- 1811 In July, the approach of the French Lord Genes, the hospitals were broken up and the sick & wounded transferred to Lisbon. A certain number of French & other foreign surgeons appear to have been attached to our army at this time. In August a good deal of ill feeling was excited amongst the surgeons by an Order of Lord Wellington which did away with the surgeons' servants - allowance unless he produced a certificate from the P.M.O. that a servant was absolutely necessary. During the siege of Badajoz there, the best quarters of Lord Wellington, was filled with wounded. A large general hospital was established here. A 2nd hospital was established at Trancoso during the advance on Oporto.

1801 Ordnance Department set up a Medical Department of its own.

Uniform - Plain scarlet in Army at large, & of blue in the Light Dragoons.

Authy. in G. M. Reg. pp. XVII-XXI
C. G. L. B. 28 Sept. 1797, 21st 8th 1798 & 1799
Order 1st Sept. 1801. (Forbes)

Four great Military Hospitals at this time were at Deal, Portsmouth, Plymouth, Liverpool, York Hospital (Chelsea). These were newly improved in 1799.

1799 Colosseum brand & 8th Regt. inoculated against small pox "in the mode adopted by Dr Jenner". Jenner was paid 100 guineas by War Office for his trouble.

War Office Feb 27/ 1810

His Majesty has been pleased to approve of the following officers being appointed and formed into a board for superintending and conducting the whole Medical business of the army, viz,

John Warr, Esq. from half pay as inspector of hospitals, & he director-general

Charles Kerr, M.D., an inspector of hospitals to be principal inspector.

Thos. Gordon, M.D. from half pay as inspector of hospitals to be principal inspector.

Annual Report 1810

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A distinctive uniform for Army Surgeons was first given them in 1803. It was scarlet with a royal crown on the buttons. The Irish Establishment wore a harp on the buttons. (Copper King)

In 1805 the regular army numbered 61,000 men abroad & 93,000 men at home. The militia which had been embodied counted 76,700 men and the various volunteer corps numbered altogether some 460,000 men. By 1808 the militia had increased in number to 200,000 men.

In 1809 Britain could put into the field 285,398 Regulars & Militia, 198,534 horse. Militia, 14,261 R. Art. & Engineers, in the East Indian Co's service 4,051 men, and of Volunteers 189,406 men. There were also 31,400 marines & 98,600 seamen. It has been computed that the permanent forces, that is the army exclusive of local militia & Volunteers amounted to 2.9% of the whole population.

The militia acted as a recruiting field for the regulars & it is estimated that 100,000 men joined the regulars through the militia between the years 1805 & 1813.

A fact specially noted by Wellington himself.

For 24th consecutive days the army marched towards ^{at Vittoria} the enemy, & in less than one month after it had defeated him, mustered within 30 men as strong as before the action, - & this too without reinforcements from England, the ranks being ~~filled~~ recruited by convalescents. "A proof of the excellence of the military and medical arrangements, & of the uncommon attention of the whole of the medical officers of the army" (Guthrie)

Peninsula War

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The first time medical officers and hospitals were assigned to an army in the field before the troops proceeded on field service was in the Peninsula. Sir J. McFry, afterwards D.C., was the P.M.O. It was arranged that every regiment should look after its own sick & in this way prevent the general hospitals becoming over-crowded. That this system worked well is evident from the fact that during the 10 months between siege of Burgos & the Battle of Vittoria 95,348 sick & wounded passed through the hospitals and yet on the eve of Vittoria only 5,000 remained in hospital. In the interval the ranks had been recruited by convalescent who had been successfully treated and returned to duty.

During this war many improvements in the interior economy and administration of General & regimental hospitals were carried out but the ^{organization} personnel, and general medical arrangements were little changed. At this time there was no ambulance corps such as our present R.A.M.C. in existence.

On the outbreak of hostilities in 1803 it was arranged that a second Assist. Surg should be appointed to all Corps of a strength over 500 men. (This was discontinued when peace came.)

Each Regiment & Staff Surgeon was allowed by Govt. a horse or mule, or its full price, with a pair of field panniers & pack saddle, for the carriage of his field stores. (Each Regiment)

Transport arrangements were in the hands of the Commissariat, (Horse)

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In Spain, the service of the field hospitals in the English Army was not as perfect as that of the French. The Ambulance waggons were too heavy (each wagon was drawn by four horses & yet could only carry four men) and carried too few men at a time. As a result wounded were often left on the battle field before they could be moved. (Duguid)

At this time each British Regt. in field service was attended by a Surgeon & two Assistant Surgeons. Each Brigade had a Surgeon-in-chief, each Division had a physician-in-chief. On the day of battle the Regimental Surgeon & one assist. surg. followed the corps into action, applied first aid to the wounded & superintended their removal. The second assist. surg. remained at the nearest field hospital ^{under} the orders of the Brigade Surg. in chief. The Physicians in chief & inspectors of hospitals remained at a central point in the rear from whence all the field hospitals diverged. (Duguid)

Dr J. Mc Guigan says during the Peninsular War.

"The division of the army, composed of from eight to 15 or 16 regiments, under the command of a Lieutenant General, were each of them under the medical superintendence of an inspectorial officer, * to whom the surgeons reported, & ~~at~~ who regulated all the medical concerns of the division. It was his duty, to see that, however short a time a battalion or a corps rested in one place, a regimental hospital was established; indeed as they carried with them medicines, bedding, stores, and all the materials of an hospital, a regiment might be said to have its hospital constantly established even on the march. It was frequently established in the face of an enemy, and nearly within the reach of ^{the} guns. When a regiment halted, after getting the men under cover in some building, and constructing chimneys, the first object was to make beds, & getting at the same time additional mattresses of straw, rushes, &c. It was really surprising to see with what rapidity this was done; so much more

regiments in the habit of it, I found the hospitals 142 complete in everything, and the men most comfortably lodged in a few days after a regiment had halted. In short, by making regiments constantly keep up an establishment for itself, we could prevent the general hospitals being crowded; much severe & acute disease was treated in its early and only curable stage, and no slight wound or ailment were ever sent off from ~~these~~ regiments; by which means the effective force of the army was kept up, or perhaps increased by several thousand men, and this was effected by the joint exertions of the medical officers who served in the Peninsula; the result of medical science, and their experience of soldiers, their habits, and their aptitude to particular diseases."

(Paper in Med. Chir. Journal of London)

* Usually a Deputy Inspector of Hospitals (General)

Pennine War. S.D. Guthrie says in "On June 1815")

"The increase of the military force of the nation, with the hardships to which the junior medical officers of the army are unavoidably ^{exposed} ~~subjected~~ on service, hardships unknown even in idea, to those who have not experienced them, brought in to the service as medical officers, several, who were incompetent to the performance of any operation, or almost any medical duty whatever; and, as the arrangements of our peace establishment have not made the medical department more respectable, or the situation more advantageous, the acquirements of our future candidates are not likely to be more numerous than heretofore, or any mode of communicating that knowledge derived from experience, less necessary. This incapacity of some of the junior members of the profession imposed a greater share of labour on the seniors, and the despatches of the Duke of Wellington have borne honourable testimony to their exertions in the field. It was not only on the field of battle that these exertions were conspicuous. I might almost say, it is not on the field of battle they are most useful; it was in camp, in quarters, in hospital, and on the march, that the medical department, uniting with their professional duties the authority of military discipline, were enabled to prevent disease, or obviate its baneful effects when produced by the labours, the fatigues, the

privations, and the accidents of military service. It is 145
a very mistaken idea, that a medical officer of a regiment, division, or hospital station, is merely a professional man. It is absolutely essential that he should have no military authority or rank that could in any way interfere with military command; but it is essential that he should have a relative rank and authority, or his labours will little avail; for the best professional man in England would make but a bad military surgeon unless he possessed a true military spirit, and until he had acquired the habits of a soldier; and it is only by passing through the several gradations of the military service that this knowledge can be thoroughly acquired."

"The confidence the D. of Wellington reposed in Sir James O. Sir John, the M.D. of Military Hospitals in the Peninsula, in giving him the uncontrolled management of the department, enabled him to enforce the strictest military discipline amongst us, on the one hand, whilst he encouraged ability, excited emulation, and rewarded merit, with the other. Every officer endeavoured, by a zealous discharge of his duty to deserve his attention, and, by keeping the army effective in the field, to join to their brethren at home, that although they were less profitably, they were not less honourably employed in the service of their country."

He goes on to describe the state of the army after the battle of Salamanca in July 1812 after wh. the army divided into two corps one under Gen Hill going to Madrid the other under Wellington to Burgos. Then followed the terrible retreat from Burgos, during the rainy season when the soldiers suffered from want of clothing, and owing to the destructive ravages of contagious & other diseases. He says "the retreat of a British Army, for any distance, has always been disastrous, and followed by an almost total disorganization of the troops, who, from disease, became incapable of service for many months." It is a fact also well known, that a retreat before an active enemy must also very much lower the troops, & expose them to many hardships & privations, if it be of long continuance in bad weather; during the retreat from Burgos ^{the whole of the army} ~~all these~~ ^{came} were in operation; and, on the arrival of the troops in quarters, the greatest exertions were necessary, from all departments, to render them again effective; and here the value of a medical department guided by a vigorous hand, and having emulation for its basis, was particularly conspicuous. He gives a table from the no. of sick & wounded between 20 Sept. 1812 & 20 July 1813. after Vittoria.

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Remained in hospital on 20.9.12 - 12,093
Admitted 111,064 of wh. 27,809
were by transfer from one hospital
to another, leaving of original
diseases - - - - - 83,255
Total 95,348

Discharged 108,885, of which 27,809
were by transfer from one hospital to
another, leaving of original diseases 81,076
Died, of which, 531 were not soldiers 7,779
Remaining on the 20th of July 1813,
of which 1,496 were not soldiers 6,493
Total 95,348.

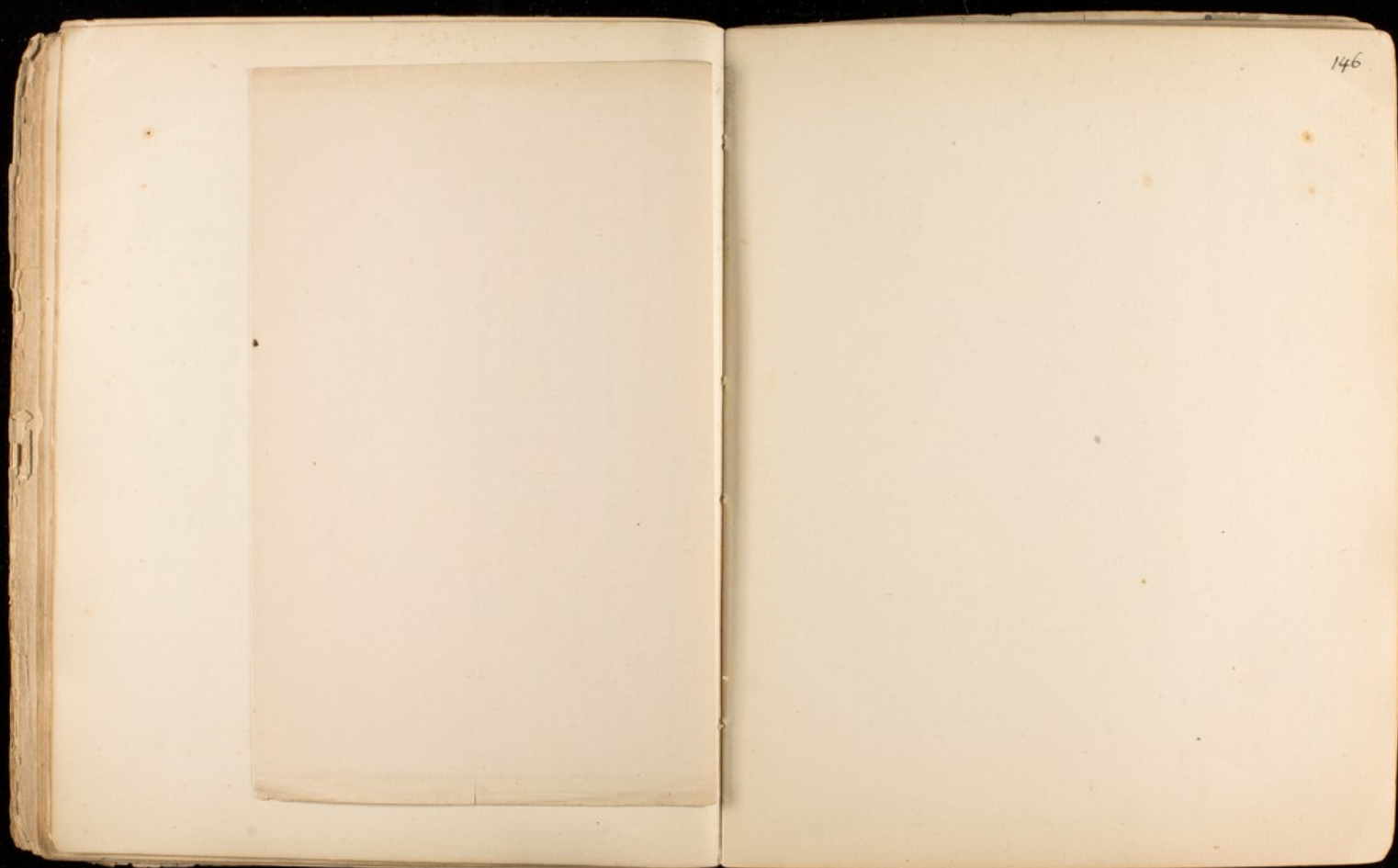
Guthrie says that many inefficient young men were sent out
as assistant surgeons to the Peninsula & one has one word "young men"
"incapable of performing any operation in military surgery."
"became able operators, in a short time, from the experience
practical lessons inculcated in our directing rooms, in our
hospitals, & on the field of battle."

Guthrie also states after his large experience of war, that
"it is quite impossible for a regimental surgeon to be out
of fire, if he do his duty; and a medical staff
officer ^{can scarcely} ~~thence~~ be out of cannon-shot. Every
regimental officer knows well how often the surgeon is
called to the front, even when a single man is wounded.
The soldier expects this assistance; and medical officers
have never disappointed him, either in the French or
in the British armies."

1812 The proportion of sick in King Joseph's army in
Spain in 1812 was 51,345 out of a total
of 291,379 men all told. Wellington who
was most particular about the health of his
troops and did his best to provide medical
comfort yet counted 16,984 sick out of
72,000 men on his rolls in 1812

1873.

The A.M.S. dates its existence as an independent organisation from the year 1873, when the appointment of medical officers to regiments, subject to certain reservations in the case of the Household Brigade, was abolished by Royal Warrant, & when the process of unification was inaugurated, which has gradually brought the M.S. to its present condition of complete autonomy. (Bowie & Remond, Cent. Army)



During the fighting before Bayona hospitals were established at Combs and Gaspellat & on 13th Dec, 1813 these hospitals contained 13,000 wounded men. Surgeon Henry records that he had 20 wounded officers and 200 men under his care. After the battle of Orthes there were ~~no~~ large hospitals for English & French at Aire. "Dr. McFiegan, was then at Aire, and he generally gave his officers plenty of work, when Peninsular and the public service required it, and made them do their work well too." The last surgery of the French surgeons & the awful state of their wounded was much commented on at the time, "most of the stumps required amputation, the wounds were foul & stinking."

at the commencement of (at Ratis) Guthrie says that during the Peninsular war, the post laid down for the wounded surgeons ~~was~~ during action, ~~was~~ seven paces in rear of the ~~main~~ colours.

During sieges the surgeons post was at the foot of the trenches.

During the assault, at the foot of the breast.

Note - All these places are under fire.

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At Toulouse the allied army numbered 12,000 men (including 117 officers) of these 1,359 were wounded and 15 attend upon these there were 54 medical officers. +

During last three years of the Peninsular war, the number of men in hospital usually averages $\frac{1}{4}$ of the whole. Mortality ratio 16% of which only 4% died in battle.

+ Two Deputy inspectors general, 10 Staff Surgeons, 6 apothecaries, 51 Assistant Surgeons (Guthrie) (See also Vol. III p. 57.)

During the last three months of 1813, the number of sick & wounded under treatment amounted to 37,144 men a number nearly equal to the whole army. (Guthrie) From this fact the arduous labours of the medical staff ~~may~~ be judged and the immense scale upon which arrangements for the attendance, supplies, and transport of the sick & wounded had to be made may be estimated. With such a vast field of practice one does not wonder when Guthrie declares "that the surgery of the Peninsular war was, in consequence of its great opportunities, several years in advance of the surgery of civil life."

June 21, 1849

Sir de Lacy Evans, in a speech in the H. of C., advocating the claims of Army Surgeons & military ^{and district} hospitals, said that during the Peninsular War

55,000 British Officers & men died, of whom not above one fourth ~~died~~ fell by the sword or from wounds.

"During this six years contest, about 500,000 men were successively sent back restored to officiating from the hospitals to resume their duties in the ranks."

"A brigade of Guards in the highest Order joined the Peninsular Army, in the autumn of 1812. Within little more than a year, out of 1965 men, they had lost, by death and invalided, 954; thus, in fact, nearly 50% in one year!" "A large part of the remainder of this brigade also passed through this hospital."

"Let the responsibility be conceived, and the energies requisite, on the part of the few officers whose peculiar duty it was to endeavor to stay the ravages of disease under such circumstances."

The Ordnance Medicine Department.

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For nearly a hundred years the Ordnance Department, (or what we should now call the Royal Artillery and the Ordnance Department) had a distinct medical department of their own with a large hospital at Woolwich. It appears that the Surgeons had a fixed and inadequate money allowance out of which they had to provide medicines as for the patients. Hospital stoppages were just as other men than the provision of medicine & hospital comforts for the sick. Indeed we learn that it was not uncommon for a commanding officer to send a man who was in debt to hospital in order that his debt might be paid out of his pay whilst he was there. In order to prevent this the Board at one time tried to stop the whole of a man's pay whilst he was in hospital. Hospital stoppages were variable in amount & this led to great discontent amongst the men. The Surgeons were also discontented for their allowances were insufficient and they were constantly at fault with the authorities on money matters. One grievance was that if a man on furlough became sick & was attended by a civil practitioner, the cost

of his medical attendance was debited against the
surgons. At length in 1786 and 1787 after
much meetings of committees & boards distinct
regulations for the Ordnance Medical Department came
into force. The Principal Medical Officer at Woolwich
was to be called the Surgeon General, and was to receive in half
pay 10/- per diem and to be relieved of ^{the} expense
of finding medicines for the hospital. The Surgeon
of the Battalion at Woolwich had to supply all
the medicines for his Battalion, "excepting bark & wine",
in return for which he was allowed £120 per
annum. The Surgeon of the Battalion detached in
England received £12 per company per annum on
condition that he supplied all medicines required
by the companies with him at Woolwich, those
required for the companies in Scotland & those on
the line of march. The recruits of the Battalion
abroad were also under his care and in return for
the medicines required for each 50 men he received
£12 annually. Thus for the Surgeons had little to
complain of. At this time it was very difficult
to get a man out of the ^{hospital} ~~hospital~~ by invaliding. The

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result was that many infirm men remained in the
ranks. These men were formed into what was
termed the Invalid Battalion, and of these there
were usually ~~200~~ ¹⁵⁰ at Woolwich, constantly under
treatment. Others were on detachment. For
furnishing these with medicines the Surgeon received
£40 a year. When one remembers that no
one was admitted to the Invalid Battalion unless
he was almost completely crippled by disease,
it is obvious that the Surgeon could not provide
much in the way of medicine for £40 a year.
The Surgeons to the Battalion to which the
Barrington and Cameron companies belonged
went abroad with their Battalions & received
£12 a year per company, in addition to their
pay. Out of this they had to provide the necessary
medicines. Detached companies ~~paid~~ had an
allowance of £12 a year for medicines which was
paid to the Surgeon in charge of them. Civil labourers
& artificers in Ordnance employment paid 1/2 d.
per ~~day~~ week to the Ordnance Medical Officer
on the Station. Civil & Military officers were
"recommended" to subscribe 2 guineas a year each,
for which the Surgeon is to supply them with medicines.

otherwise they are to pay for such medicines as they use." The Medical Officer was to give his attendance to the officers without fee.

The system does not appear to have worked well for the Board of Ordnance in the 5th May 1797, resolved that after the 1st July 1797, the supply of medicines by surgeons out of a fixed money allowance should cease and ^{that} ~~there~~ one of the Ordnance chemists should be appointed Representative Apothecary. As compensation, an increase of pay was granted to the Medical Officers.

Sanct for 1844 shows Ordnance Medical Dept. then existed as a separate establishment. When did it become merged into the Army?

1796 16th April "Secretaries Comm. Delta Corde" 152.
(See of Dec for Dec)

Ordnance Dept

Surgeons should be regularly paid and all perquisites abolished. Medicines and hospitals to be paid by Government. Surgeons to rank as Captains when choosing quarters and to be entitled to a retiring allowance. Surgeon's Medal promoted to be Commissioned Officer.

1801 Gen. Depo. instituted.

The lists of men discharged from the Army in 1791, now preserved in the Record Office, show that men were not invalided out of the service in those days before they had been given ample time ^{in which} to get cured.

Men were invalided for ~~these~~ ^{these causes} "sick in the country for 4 years", "rheumatic, blind and deaf", "insane, and Burthensome to his Battalion", "Lectic and Subject to fits", "hurt in back, and otherwise infirm", ~~and~~ "unruly" and "undisciplined" ~~men~~ and "thief" are chiefly given as other causes.

1799. Hospital beds were provided for 4% of the strength. Struikent was given personally by the Surgeon or his mate, if he was not present a Struikent was mixed with the patient's food. A nurse drawing 1/- a day was also allowed to each hospital: Her duties were to dress and dress & comfort for the sick & to work for them.
(A.M. Rep 1799)

In 1802 A new grade of M.O. called District Surgeons were appointed to recruiting districts for the purpose of examining recruits. In 1808 we find 26 of these surgeons were employed but by a House of Commons order, dated February 1810, they were superseded by Staff Surgeons.

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During the war with France there ^{were hospitals} at ^{Lyons} [&] ^{Lymington} depots and hospitals for invalids, sick & wounded of the foreign troops & for prisoners of war with medical officers of the same nationality as the patients.

The Apothecary General. — See ante p. 118.

By a warrant of George III (dated 1747) an apothecary was created perpetual furnisher, with a remainder to his heirs of all the medicines necessary for the general service of the land forces of Grt. Britain. In the 11 years ending ~ 1806 this apothecary general received the sum of £807,087 for the supply of medicine. The supply of drugs was not checked as to quality & frequent complaints were made.

As the commanders of the land forces were it is noted that there were ^{in store} sufficient beds & hospital equipment for 80,000 sick.

In the early part of the century ~~he~~ ^{he} ~~was~~ ^{was} ~~stopped~~ ^{was} ~~from~~ ^{from} the ~~doctor's~~ ^{doctor's} pay ~~for~~ ^{for} his maintenance whilst sick in hospital. (Bellingill 1830)

The following list gives some idea of the personnel & pay of a general hospital at the beginning of the century

Depot at the Isle of Wight
(afterwards moved to Fort Pitt, Chatham)

	Daily pay of each	
	s.	d.
1. Inspector of Hospitals, in command	40	0
1 Physician	20	0
1 Surgeon	15	0
1 Deputy Purveyor	10	0
3 Assist. Surgeons	7	6
3 Hospital Assistants	6	6
1 Clerk	3	0
1 Matron	2	6
1 Military Superintendent		
1 Steward	1	0
2 Ward attendants		6
2. Attendants on the Surgeons		6
2. Dispensaries	1	0
2. Cooks		9
4. Washerwomen	1	0
1 Man to assist them		3
4 Nurses		9
19 Orderlies		3

2 orderlies of these hospitals were & others so I presume the same paid were assigned to this working party. At Chelsea and Farnham were employed.

In 1804 a King's warrant abolished several of the divisions of rank amongst officers of the medical staff but greatly improved the situation of those who were left. (Henson)

1804 - Strength of Army in Britain

Regular Army 75,000 infantry & 12,000 Cavalry.

Militia 50,000

Guernsey & Colonies ³⁴³ ~~124~~,000

1807 In 1807 we find the General 157
establishment of the Medical Dept was then composed:-

Pay & Allowance (on Home Service)		L.	S.	d.
8	Inspectors of Hospitals	7,556	16	0
18	Deputy Inspectors of H.	11,354	6	0
17	Physicians	9,173	4	0
60	Staff Surgeons	23,565	0	0
26	Surgeons of recruiting districts	4,745	0	0
16	Apothecaries	4,824	0	0
8	Purveyors	3,356	0	0
14	Deputy Purveyors	3,101	0	0
136	Hospital Assistants	18,432	0	0
		86,107	6	0

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Before the Military inquiry in 1808 Army physicians were selected by the Physician General from amongst the M.D.s & M.B.s of Oxford & Cambridge. It was arranged after 1808 that appointments of M.D.s should be first made to troops & hospitals before the ^{and after} promotion to the rank of internal physicians to the forces ^{promoted to the rank} ~~appointed~~ from amongst these. (Dupin)
Purveyors were ^{originally} selected from amongst the oldest & most meritorious officers of the M. Dept. It was a species of promotion. Later on ⁽¹⁸²²⁾ the selection was made

from officers of the Dept. who were most familiar with the details of accounts.

In 1808 Court founded in 1793 dissolved a medical arrangement of army rested in a Director General and two Principal Inspectors. On the peace establishment of 1817 one of these latter officers ceased to be borne on the staff of the army. (Herman)

1812. No mention of M. O. in despatches occurred until the Peninsular War, when, after the siege of Badajoz in 1812 3,500 men having been killed or wounded in the assault and 1500 in the preliminary siege operations Lord Wellington states that the M. O. had performed their duties as well as their brethren. In 1800 Mr. Fisher took advantage of this to point out the gratification it would give the M. O. of the army & he mentions it would be to their exertion in the furtherance of his Lordship's cause see his way to nothing there in his journal despatches. After some demur to Lord Wellington agreed and from this date we find medical officers names mentioned in despatches so frequently in proportion to their numbers as their comrades in other branches of the service

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1812. In this year the "Royal Wagon Train" was organized for general transport & commissariat purposes. Part of its equipment consisted of Ambulance waggons with springs designed for the carriage of the sick & wounded. This arrangement lasted until 1833 when, proving defective, it was broken up.

1813. The grade of Hospital ~~Commissioner~~ ^{Master} was abolished on the staff, as it had previously been in regiments. The hospital master was replaced by the Hospital Assistant who became, for the first time a commissioned officer.

1816 After the peace of 1816 the army entered into a period of neglect. The Militia & Volunteers disappeared & in

1821 the regular army only numbered 101,031 men, of whom 19,264 were in India, and 31,500 in the colonies.

1829. Short service system of the great war abolished & enlistment for life substituted.

Rates of pay & stamp ^{duty} ~~pay~~ on commissaries
taken from Army list 1818 (Sept.)

PAY		£	s.	d.
D. G.	per annum	2000	0	0
Principal Inspector	"	1200	0	0
Inspector of Hospitals	per diem	1	17	11
Deputy	"	1	3	9
Physician			19	0
Purveyor of Hospitals			19	0
Deputy			9	6
Surgeon			14	3
Do. after 20 yrs service			18	10
Surgeon of a recruiting district			10	0
Assist. Surgeon			7	6
Apothecary			9	6
Hospital Assistant			6	6
do abroad			7	6
Dispenser of Medicines & Purveyor's Clerk	each	5	0	
do	abroad	6	0	

STAMP-DUTY.		£	s.	d.
D. G. of Hospitals		2	1	9-6
D. S.		1	2	17-6
Do by Branch		1	2	17-6
Deputy Inspector		1	1	7-6
do by Branch		1	1	7-6
Physician		7	0	17-6
Surgeon		10	0	2-6
Assist. Surg.		5	0	7-6
Surg of Regt. Dist.		9	0	12-6
Purveyor		10	0	17-6
Devy Purveyor		9	0	12-6
Apothecary		9	0	12-6
Hospital Assist.		4	0	19-6

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In 1819, Two of the D. G. had been suppressed
and the department was under one D. S. who
got £3000 a year and a deputy D. S. who
got £1,200 a year (Dublin)

Until about 1820 the surgeon in India held a contract for
treating their sick. The soldiers' hospital stoppages were
also only half those at home. The method gave rise to
great discontent & mismanagement. Balford wrote very strongly
against it.

1819. Fort Pitt accommodated 500 sick and about 6000 passed through it yearly. A French visitor speaks very highly of its management and of the skill of the surgeons. Amputees were accommodated at Fort Clarence in the casemates there. The Ordnance Dept had its own medical staff independent of that of the Army. Their medical depot was at Woolwich.

1820. "The staff in ^{now} composed of a certain number of Inspectors and Deputies, Physicians, Surgeons, Apothecaries, Assistant Surgeons, and Hospital Assistants, with Commissioners, and of some Hospital Master & Dispensers, who hold their situation by warrant." (Hemmon)

1824 July. Hospital Sergeants appointed to battalions of Infantry at home & abroad, except in India. In October the appointment of Acting Hospital Assistant was abolished, the Hospital Sergeants having taken over their duties.

1826. Medical Board ordered that assistant surgeons were to be examined prior to promotion with a view to "ensuring to the army the regulated proportion of medical staff in the most efficient state."

1830 By warrant dated 27 July 1830 the ranks of Apothecary¹⁶⁰ and hospital assistant were abolished the latter becoming assistant surgeons. The title of physician to the forces was also abolished. The new designations of the Army were Assistant Surgeon, Regimental Surgeon, Staff Surgeon, Assistant Inspector of Hospitals, Deputy Inspector General of Hospitals, and Inspector General of Hospitals.

1840 By warrant dated ^{October} ~~December~~ 1840, assistant inspectors were abolished. ^{and then of} ~~these offices~~ Staff Surgeons substituted.

1841 In 1841 Staff Surgeons were divided into 1st & 2nd class.

1851. Andrew Smith, Inspector General of Hospitals succeeded Sir J. McJannet as head of the department. The salary was reduced from £2000 a year to £1,200 a year. The House commented on the reduction and "the country will find, to its cost in case of war, that it is not in the underepaid and undervalued medical department that such reduction of power and enrolment can be made."

1852. The militia again enrolled on a basis of voluntary enlistment.

1826. An administrative office of the Army was first sent to India or as to come early in 1826

By Royal Warrant dated 27 April 1853 the Purveyors Department was ~~re-established~~ ^{re-established} for the purpose of carrying out the financial affairs and supplies of the military hospitals. The Purveyors ranked as Subalterns in the Army and after 15 years service as Captains. A Royal Warrant of 31 March 1855 reorganised the Department, the ranks being Purveyor in Chief, a Deputy-in-Chief, and the Purveyors with the relative ranks of Major, Capt., & Lieut. according to their length of service. This Warrant was cancelled in 1860 (Dec 24) and the establishment increased to 86 officers, to whom were given the sole charge of hospitals buildings, out-buildings & grounds & other premises. (Clarke)

In the early part of 1854 the British Army numbered 140,043 men, 71,084 being at home, 39,754 in the Colonies & 29,208 in India.

Medical Board in India. (Crawford's Hist of I.M.S.)

From 1842 until Medical Board was abolished in 1857

The three members were designated

Senior Member	=	Phys. General
Second "	=	Surg. General
Third "	=	J. G. of Hospitals

Crimée.

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On the outbreak of the Crimean War the "Hospital Conveyance Corps" was established.

This was principally recruited from old soldiers, military pensioners & other non-effectives. They were required to carry the wounded to a place of safety, to attend sick in the hospitals, to take charge of the ambulance transport & to provide servants for the medical staff of the army. In this way it was expected to prevent the drawing of men from the effective ranks for other than combatant duties. It failed before hostilities had actually commenced for many reasons. The men were untrained. They were generally of drunken and disorderly habits, too old to be active, and were not amenable to discipline. Their work was overlooked by the medical staff but the medical officers had no power of command over them and could not enforce ^{any} ~~their~~ authority or any discipline over them. The corps was abolished & its duties taken over for a short time by the Land Transport Corps under Warrant 24th June 1855. A year later this Corps became "the Military Train."

Crimée. Incident where Surgeon Wilson took
command of a troop of the ~~1st Hussars~~ +
saved Duke of Cambridge from being cut off
by the enemy.

Lord Wolseley says: - "The medical history of the Crimean
War is a shameful story, and tells of how an army
may be destroyed by a minority through want of
ordinary forethought and ignorance of military
science: the general can learn from its pages the
important lesson that the greater attention he pays
to the health of his men, the stronger will be
his battalions on the day of battle." The result
of a proper provision of medical arrangements was a loss
of 15,000 men to the army, victims of official neglect.
The country then awoke to its responsibilities and
no regard was paid to expense. Every man in the allied army now
costs a year, an expense which would have been much less if certain provisions had
Claude says the Warrants establishing the A.H.C. were
dated 15 Aug. 1857 and 27 Sept. 1861

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By Royal Warrant, June 11th 1855 the first Medical
Staff Corps was established. Nine Companies each
78 strong were formed, and they were to be
employed in any way that may be required in
the performance of hospital duties." A second
warrant followed almost immediately for three
was practically no military feature in the
organisation of the corps. On Sept. 20, 1855
the Army Hospital Corps was organised in its
place. The failure of the M.S.C. was
due to the anomalous condition of affairs by
which the M.S.C. in charge of the hospitals
while the M.S.C. in charge of the hospitals
having no military powers were not able to
punish the men of the corps for offences.
The men were undisciplined & untrained in military
discipline. The standards & ward-masters were not
given the relative rank of M.C.O.'s, they did
not wear the distinctive badges of M.C.O.'s, nor
were they empowered to command the men as M.C.O.'s
do in other corps. The new A.H.C. had for a
complete military organization. Its ranks were
chiefly filled by transfers from regiments, mostly
men of two years service already used to regiments of
discipline

Only men of good character were taken and they had to pass a probationary period of three months in a military hospital before they were admitted permanently to the ranks of the Corps.

On 5th May 1857

In 1857 under the presidency of the Rt Hon. Sidney Herbert a Parliamentary Commission was appointed to report on the regulations affecting the sanitary condition of the Army, the organization of military hospitals & the treatment of the sick & wounded. The report of the Commission ^{presented to Parliament in 1858} led to great improvements in the efficiency of the medical arrangements of the army & in the status & position of its officers.

The A.M.C. was remodelled & a practical Army Medical School organized.

The regimental system which had done much good service in the past was gradually found to be incompatible with the ^{progressive} development of the Army Medical Service & by Royal Warrant in March 1873 - a vast service by the Great Army

reformer Mr Cardwell abolished the regimental 163 system & formed all the medical officers not on duty in the Hospitals troops where R. troops existed into one department. A series of orders of the same date reorganized the A.M.C., whose duties in hospitals were extended and two new ranks of officers were created viz., "Captains of Orderlies" & "Lieutenants of Orderlies" replacing the rank of Apothecary to the forces, dating from 1854, which was abolished. In the same year, 1873, Regimental hospitals were abolished & military hospitals were organized for administrative purposes as General Hospitals, Station Hospitals, and Field Hospitals. For purposes of discipline the men of the A.M.C. were under the command of the Adjutant & Lieut of Orderlies & this led to some friction with the M.O.s. The result was that in 1877 authority was given to M.O.s to command the officers, M.O.s & men of the A.M.C., and all patients in military hospitals, and also all subunits attached for duty. In 1881, Captains & Lieut of Orderlies were gazetted as Quartermasters, A.M.C. &

placed on the same footing as regards pay & retiring allowances as Leaves of Infantry.

In 1883 a committee under the presidency of Lord Stanley was appointed by the Sec. of State for War to enquire into the organization of the A.H.C. the management of hospitals & nursing in the field. They recommended.

Undivided control to be vested in M.O's

The Medical Service of the Household troops to be assimilated to that of the Army.

Remuneration & Field Hospitals to be afforded practice in times of peace.

The assimilation of the A.H.C. & Army. into one corps both of which were to wear the same uniform.

In 1884 the Army & Inns of the A.H.C. were designated the Army & the War Office officers, Mess & men of the A.H.C. became the Medical Staff Corps

At present the Army Service Corps supply all the ¹⁶⁴ transport required by the medical dept. and the Transport officers of the A.S.C. take his orders from the O.C. of the unit, bearing co. a field hospital to which the transport is attached

In 1889 a Committee under the Earl of Camperdown was appointed to enquire into the pay, status, & conditions of service of the M.O's of the Army & Navy.

In 1891 a Royal Warrant was promulgated which altered the titles of ^{Army} medical officers and sick leave was granted to them on the same conditions which apply to ^{regimental} ~~the~~ officers. By this warrant the substantive ranks of Medical Staff were laid down as follows.

Surgeon Major General

Surgeon Colonel

Assistant Surgeon Lieut. Col.

Surg. Lieut. Col.

Surg. Major.

Surg. Capt.

Surg. Lieut.

These titles carried precedence & other advantages ^{ranked indicated by the} attached to the military parts of the titles but not limited command.

"The Army rank conferred on medical officers facilitates the performance of the duties of command & discipline now imposed on them. Where

The military command of soldiers is involved the possession of a military title is convenient for common balance & it enhances the officer's authority.
(Army Book of the British Army)

- | | |
|----------------------|---------------------|
| 1 E. H. Y. Goodwin | 15 C. S. Wells. |
| 2 J. Walter | 16 R. de B. Rintou |
| 3 F. Gillespie | 17 S. Hope |
| 4 A. A. Goe. | 18 T. J. Baker |
| 5 F. Dransell. | 19 J. H. N. Bracken |
| 6 G. F. White. | 20 P. Quinlan |
| 7 F. R. Wilson. | 21 F. Pont. |
| 8 W. H. Jones. | 22 P. C. Baxter |
| 9 A. Alcock. | 23 S. B. White |
| 10 B. M. Davidson. | 24 H. Lamb. |
| 11 R. S. Heath. | 25 H. O. Harney |
| 12 R. G. Jones. | 26 G. B. Grant |
| 13 B. V. J. J. J. J. | 27 W. B. Wall. |
| 14 J. J. J. J. | 28 T. B. Flynn. |

1860. The first competitive examination for commissions as Army Surgeons was held in this year. (Copper King) (Warrant 17 Oct 59)

Netley Hospital cost £334,172 for land & building. The Herbert Hospital cost £228,355, for similar items; the one being at £294 and the other at £344 per man. Medical School opened 1863 under a Senate appointed by the Secy of State for War. Candidates (under 159 warrants) had to be between ages of 21 and 26, ^{unmarried} and possess respectable qualifications in Medicine & Surgery. Pay at Netley 55 a day with quarters or 7/- a day without.

The Army Medical School was opened by Lord Herbert in October 1860. Twenty nine candidates for the British service & 14 for the Indian Medical Service, who had passed the first competitive examination attended the course of lectures. They were brought on March 19th 1861, their commissions being antedated to the 1st October 1860. The names of those of the British Service are given in the opposite page. Several have since attained distinction in the Service.

For History of A. M. School Netley see Vol. Miscellaneous Page

War in New Zealand.

At the assault on the Gate Pahi in April 1864, Surgeon W.A. Mackinnon not only carefully attended the wounded under a heavy fire but personally protected them by keeping the enemy at bay. The wounded were lying defenceless on the ground, and no troops were immediately at hand when a Maori chief & his warriors advanced towards the helpless wounded. The gallant Surgeon picking up one wounded man, rushed after another fired at the approaching enemy again and again. The Maori chief fell, shot through the leg and his followers fell back. After the fight was over the Maori wounded were attended to and Surgeon Mackinnon had the satisfaction of amputating the leg which he had himself injured.

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Ashanti War 1874. At Amasfe the English
force was hotly engaged and the Black Watch (42nd)
were gallantly fighting their way through the bush.
Many men had fallen and the surgeons on duty in
the fighting line were fully occupied attending to
the wounded as they fell. Two Highlanders were seen
coming into the open space where the brigades &
other officers were standing, supporting between
them the regimental Sergeant Major, an old soldier
who had fought in the Crimea & Mentana. He had
been shot through the neck & the arteries blood
was spouting from his wound. The gallant P.M.O.
who had pushed to the front to see how his
subordinates were working, saw the wounded man
approaching and cried out, "If that man is not
at once attended to, he will be dead in five minutes."
No other medical officer was available, and so
amid the shot, shot of the flying bullets flying
around him, he placed the wounded man on the
ground and proceeded to tie the carotid artery
with as steady a hand and as unshaken nerve
as if he were in a peaceful operating room at
home. A brave & skilful man acted with promptitude
and skill and so saved

to the service of his country in the same man.
The P. M. G. was Surgeon Major W. A. Mackinnon (afterwards
H. C. B. and ~~DB~~ Director Genl.)

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Scrymgeour Letter Book
1796 (18th April) ~~Scrymgeour~~
Letter Book of Surgeon Major
for W. A.
Ordered
Surgeon to be regularly paid
all his personal expenses
including & to be paid for
by Govt.
Surgeon to rank as Captain
when during quarters & to be entitled
to a retiring allowance
Surgeon Major promoted to be
Commissioned Officer.
O. M. Sept 1st instated 1801
Uniform

1747 "A certain individual
was appointed apothecary for
with the military, for himself
and his kin, of providing
drugs for the army. but in
1793 the Surgeon received a
sum proportional to the
strength of his corps in the
understanding that he should
furnish all necessary medicines."
Fulcrum

J. G. of Hospital since 1758

1794 Medical Board appd
wrote Amos.

Surgeon General's Office

1796 (16th April) ~~Surgeon~~ B.
Let this be sent to the
for 1000.

Ordered

Surgeons to be regularly paid
all perquisites abolished
Hospitals & hospitals to be paid for
by Govt.

Surgeons to rank as Captains
who during quarters & to be entitled
to a retiring allowance

Surgeons' pay to be promoted to the
Commissioned officers.

O. M. Dept - instituted 1801

Uniform

to the service of
The P. M. G.
H. C. B. and

1747 "A certain individual
was appointed apothecary for
the military, for himself
and his kin, of providing
drugs for the army, but in
1793 the Surgeon received a
sum proportional to the
strength of his corps in the
understanding that he should
furnish all necessary medicines,"
Fulbright

J. G. of Hospital since 1758

1794 Medical Board appd
wrote Govt.

Boer War. - Burners' Spring. Surgeon Ward was wounded in the thigh but continued to perform his duties incessantly from the moment the combat was over, through the night, until 6 a.m. next day. The casualties amounted to 155 of whom 77 were killed. Next day Surg. Major Comerford arrived with ambulances & medical orderlies from Pretoria.

Pretoria. - Medical arrangements were agreed to have been excellent. The hon. officers being Brigadier Gen. Skene & Surg. Major Comerford. (Both.) The civil surgeon in the town was a strike for higher remuneration but was disposed with. Pres. Humphreys M.C. died in Pretoria.

Marabastad Fort. - Surg. Harding was in most charge & his assistant was so good that no nurses were needed, the only patient being the wounded.

Drydenburg Fort. - Surg. Falsby in most charge, actually commenced the service during the day Lt. Long was ill. Surg. Allen, A.H.C. is also spoken of his service under fire.

Rustenburg. - Surg. Ritchie

Majuba. - A surgeon and some orderlies were shot down at the summit of the mountain whilst attending the wounded. Surgeon Arthur Landon, although mortally wounded himself managed to creep on to the help of a wounded comrade and administer a hypodermic injection of morphia to him thus relieving his agony. Landon then quietly died. At the base of the hill Surg. Major Comill was with the supporting Highlanders & when the Boers came down & attacked he attended the wounded under fire during the retreat and was himself shot dead.

From Sir George Colley's despatches after the Tugela River.

" 23 Surgeon McFann well maintained the distinguished reputation of the Medical Department for self-sacrificing efforts in attendance on the wounded. Until the arrival of the ambulances, with Surgeon Aris and Landon, he was the only M.O. with the force, & laboured indefatigably with the wounded."

Captain Joseph Farmer's account of how he won the V.C. at Majuba. "It was when I saw that all was over and that Colley was finished that my little affair happened. The ammunition had been spent, the 58th, the 60th, the 92nd Highlanders, and the Natal Brigade were completely at the mercy of the Boers, and some of the last group standing up to the foe I saw shot down in front of me. The officers were practically all dead or severely wounded, and, in fact, all was 'up.' "I belonged to the A.H.C. which you know today as the 'Royal Army Medical Corps' and I was busy helping Surgeon Arthur Landon to dress the wound of a fallen soldier, when the Boers shot at us so we were in the very act of bandaging the wound. We were all three hit, and I sprang up and waved vigorously

B. the white bandage above my head as a flag of truce, never dreaming that even a 'savage' foe would ^{not} ~~have~~ respected such a signal. But a bullet came flying and struck me in the right arm holding up the flag of truce, and that hand fell powerless by my side. 'But I have got another arm,' I said, going to the surgeon, and I picked up the white bandage with my left ~~arm~~ hand and raised it aloft again, waving it. In almost as little time as it takes me to tell you another bullet came along and passed clean through my arm, here at the elbow. Then that fell also, and I rolled over in great agony. The surgeon, who was himself mortally wounded, injected morphia, so great was my pain, and I knew little more till I was rescued.

"I was proud when I heard that General Sir Evelyn Wood had recommended my name to Her Majesty for the greatest honor a soldier can desire, and naturally I was all the more proud when I learned that I was the only man on that terrible day who had won such a distinction." (Windsor Magazine Jan. 1900).
with portrait.

THE BRITISH MEDICAL ASSOCIATION AND THE MEDICAL PROFESSION.

A CRITICAL REVIEW OF THEIR RELATIONS.

(Concluded from page 79.)

VIII.

THE SERVICES.

COMMONLY associated with a right conception of ethical principles and an instinct for their application is the quality known as *esprit de corps*, and the catholicity in this respect of the British Medical Association is well exemplified by the work that it has done on behalf of the medical departments of the Royal Navy, the Army, the Indian Medical Service, the West African Medical Service, and the Colonial Medical Service as a whole. On many occasions the Association has proved itself in no wise less anxious to promote the interests of medical men in all these services than those of the independent practitioners who form the majority of its members.

It began to work for them within twenty years of the date of its foundation, and after the annual meeting of 1850 it grew to regard protection of their special interests as one of the duties that it must habitually perform. It had already at that date made representations to Parliament as to the propriety of army surgeons not being overlooked when military honours were to be bestowed by the Crown, and the meeting in question gave orders for the presentation of a formal memorial on the subject.

The defects in the administration of the Army Medical Department at the time were very numerous, and it is not quite certain why the Association chose this particular point for its first attack. Possibly it was due to the fact that not long previously George James Guthrie, then one of the leading surgeons in London, had declined the honour of Companionship of the Bath.* The ground of his refusal was that it was proposed to place him on the civil division of this order, and he claimed that if he were entitled to the honour at all, it was the military C.B. that he should receive. As a young man he had served for ten or twelve years as an army surgeon, but, in common with numerous other medical officers who served with distinction in the Peninsular campaign, or later on in the early Indian wars, he had received no reward beyond mention in dispatches. Even mention in dispatches was at the time an innovation as far as army surgeons were concerned, for despite the fact that the death-rate among them from wounds and disease was—as now—proportionately quite as high as among other officers, and that a surgeon habitually accompanied storming parties, the tendency was to regard him as a kind of camp follower who ought to be content if he got his rations and his pay. Other officers got special pensions for wounds; a medical officer was regarded by some as a mere civilian, not entitled to such pensions. It was, in fact, only due to the friendship existing between Wellington and his principal medical officer, McGrigor, that mention in dispatches was first accorded to surgeons. After making representations to Wellington as to the unfair treatment of army surgeons, McGrigor convinced him that they should, at all events, be mentioned in dispatches, by adducing the fact that whereas ordinary officers remained in the trenches only for eight hours at a stretch, surgeons had to remain in them for twenty-four.

After the presentation of the memorial of 1850 the Association seems to have taken no further action for some years, but it renewed its attack on the War Office and Admiralty with great vigour in 1857, and from this date onwards the records relating to attention paid to the subject both by the Central Council, by the Branches, and

* As illustrative of the times, as also of some points mentioned in earlier articles, it may be mentioned that Guthrie entered the army as a surgeon in 1801, when barely aged 16. He retired from it when still under 30, and, after a period of study at St. Bartholomew's and elsewhere, he opened an infirmary, which afterwards became the Royal Westminster Ophthalmic Hospital. He also gave lectures on surgery, and eventually became president of the Royal College of Surgeons. He was not, as might be supposed, an unqualified man when he joined the army, but a member of the English College of Surgeons. At that time this college made special arrangements for those who intended to enter either the navy or army or the medical service of the Honourable East India Company. It allowed them to pay only half the ordinary fees for their examination and diploma, but took care to exact from them the remainder if eventually they left the army and began to practise within its sphere of influence.

NURSING STAFF.
The following is the nursing establishment:

<i>Nursing Sisters.</i>				
Head Sister	...	...	...	1
Superintending Sister	...	...	...	1
Nursing Sisters (two on leave)	...	...	...	11
<i>Sick Berth Staff.</i>				
Chief Sick Berth Stewards	...	...	...	11
Sick Berth Stewards	...	...	...	37
Second Sick Berth Stewards	...	...	...	24
Sick Berth Attendants	...	...	...	69
				141
Second Sick Berth Stewards (for mobilization)	...	...	...	26
Total	...	...	...	167

CONGRESS OF THE ROYAL SANITARY INSTITUTE.

WHEN the Council of the Royal Sanitary Institute accepted the invitation of the Corporation of Blackpool to hold the twenty-ninth congress of the institute in that town it was confidently expected that a successful meeting would result, and that anticipation has been fully realized. The opening meeting on July 6th was addressed by the President of the Congress, the EARL OF DERBY, who referred to the great improvement that had taken place in recent years in the health of the British soldier. With this improvement, he said, the social status of the soldier had gone up, for every day that he was in the army he was learning more and more of self-respect, and that self-respect did not leave him when he went back into civil life. Formerly the army had been looked upon as a disseminator of disease, but it might now be regarded as a missioner of health.

In the Section of Sanitary Science and Preventive Medicine, the President, Professor SHERIDAN DELÉPINE, discussed in his address the question of the relation of the State and local authorities to the promotion of medical research. Although he deplored the small amount of assistance in this direction given by the State he considered that most creditable work had already been done by the small band of men and women who were engaged in it.

Dr. JAMES NIXON opened a discussion in this Section upon the effect of the National Insurance Act upon public health administration. Although more than one speaker during the discussion referred to the overlapping which was likely to take place in the future work of the Local Insurance Committees and in that of the local health authority, there appeared to be a general consensus of opinion that, on the whole, the Act would have a favourable influence as regards public health administration.

The Conference of Medical Officers of Health was well attended, and in his presidential address Dr. PHILIP BOOBYER spoke with concern of the lack of uniformity in the allocation of administrative control of public health departments. In some districts he stated the medical officer had more or less complete control of the department, while in others his control was very incomplete.

A discussion upon the standard of habitable houses, introduced by Dr. A. B. DUNN, the medical officer of health of the Doncaster Rural District, elicited divergent opinions as to the need for a parlour in the house of the working man, as to the propriety of giving him a fixed bath, and as to whether it was desirable to erect cottages with two bedrooms or with three.

Dr. T. E. FRANCIS, M.O.H. Llanelly, advocated the carrying out of town planning in small districts by by-law, instead of having recourse to the more elaborate machinery of the Housing, Town Planning, etc., Act, 1909.

A long and animated discussion took place in connexion with the administrative control of diphtheria. Dr. A. B. MACMASTER of Crewe referred to many difficulties which

by the JOURNAL are so numerous that it is not possible to do more than refer to a few items only.

The work of the Association in 1857 seems to have been largely instigated by the occurrences during the Crimean campaign and Indian mutiny, and the memorial that it presented to the Government was of a much more comprehensive kind than the first. The claim made was that the medical departments both of the army and navy should be thoroughly reorganized and the conditions attaching to the employment of medical men in these services entirely altered. None but regularly educated medical men should ever be engaged, and once they were commissioned they should enjoy absolute equality with other officers. In particular, they should have like authority over those serving under them, and be equally well off in respect of retiring pensions, reception of honorary distinctions, and other rewards for good service.

The Medical Service of the Army.

The presentation of this memorial was followed by the issue in 1858 of a Royal Warrant and new Army Medical Regulations, which materially improved the position of the medical men in question—at all events, on paper. The resulting peace did not, however, remain long undisturbed. The Royal Warrant and the Regulations of 1859 had done much more than place on a firm footing the system of competitive examination for admission introduced a few months earlier, and provide for young medical officers a special education at Netley. They had raised the Army Medical Department from a subordinate position to one of relative independence and power. This fact was bitterly resented by combatant officers of all ranks, and they showed a strong disposition to endeavour to neutralize the effects of the change as much as possible, and largely succeeded.

This being the case, the Association first lodged protests with the War Office, and then, finding that no result followed, started in 1864 a definite campaign with the object of securing that there should be compliance in all respects with the terms and spirit of the warrant and regulations mentioned. The crusade took the same form as those which have been described in earlier articles. A deputation was sent to the Secretary of State for War, petitions were sent to Parliament, and endeavours made to secure the co-operation of various persons of influence. The work done was by no means ineffective so far as immediate results were concerned. In other words, the Government caused an inquiry to be held, and subsequently a fresh warrant was issued, and later on, as the pressure of the Association continued, a good many other warrants. There was never, however, any great improvement of a permanent character, for though each warrant in its turn purported to make concessions, and did in fact do so, each was followed sooner or later by the issue of general orders, or War Office circulars or memoranda, which overrode or explained away some one or other of the provisions made at earlier dates.

Matters went on like this for many years, and meantime the Secretary of State for War in the early Seventies took an unhappy course, which has since been followed with equally unhappy results by more than one Minister of the Government. He took into his counsel a private medical friend who was not in a position to gauge the feeling of the profession, and issued a new warrant introducing a system which the British Medical Association, through its JOURNAL, described from the beginning as doomed to failure.

The army medical regulations of 1859 had left the old regimental system practically untouched, while the new warrant, besides substituting a short term medical service for life employment, established a system which was neither departmental nor regimental. All surgeons were classed either as administrative or executive officers, but the unified corps which some of them were supposed to form practically did not exist, and the regiments to which others were attached declined to recognize them any longer as their fellows. In short, nearly all such advantages as an army surgeon had previously enjoyed were abrogated by this warrant.

In effect an army surgeon was no longer either a civilian or a soldier; his relative rank brought no advantage; his promotion was blocked; his retiring terms were bad; he might be forced to keep a horse but was not certain to

receive forage allowance; he had no mess room of his own and if attached to a regiment he had no definite right in the mess room of its officers; his time was liable to be entirely occupied by returns, and except as a possible witness he played no part on boards even when they dealt with strictly medical subjects. When he worked in hospitals it was under the command of a combatant officer, and he had no authority over his own orderlies. Furthermore, the system was as bad for the army as a whole as for the surgeons. Soldiers sent to hospital were grouped according to the regiments from which they came; one of the medical officers attached to that regiment was in charge of them, and as these were constantly being changed or might be told off for some other work, a sick or wounded soldier was liable to be treated by several different medical men in succession.

Naturally it was not long before the Association took steps to remedy matters. First it drew up a complete statement of all the evils which existed and presented this document to the Secretary of State at an interview. The proceedings were long, and the reporter's account of the beginning of the speech made in reply to the deputation is worth quoting:

What the deputation was asking for the whole of the services were asking for—a better system of promotion, better arrangements for retiring, and increased allowances. . . . The medical officers of the army were very fortunate in having a civil power of magnitude and influence like this Association to represent their interest in deputations, and this was what other parts of the army had not. The advantage of being thus represented was very great.

A little later a few new concessions were made; but it was not until the end of the Seventies that any permanent improvement was effected, and meantime there had been a definite trial of strength between the Association and the War Office. The former continued to press for abolition of the existing hybrid system, and the latter publicly declined to take any further step towards meeting its views. In fact, the warfare was so open that just before the Government found itself obliged to give way, a semi-official attack on the Association was made in the *Army and Navy Gazette*, on the ground that it had seriously injured the army by depriving it of medical officers.

The net outcome was that at the end of 1879 a new set of army regulations unified the so-called Army Hospital Corps with the Army Medical Department, abolished the remains of the old regimental system, ousted combatant officers from the control of hospitals, provided for the performance of nursing duties by trained men directly under the command of the surgeons they assisted, and improved the position of the latter in many other ways. This was a real victory, but the Association was still not satisfied.

The new code did not offer any encouragement to medical officers to continue to be earnest students of their profession, and opened the door for the reintroduction of appointment by nomination instead of by competitive examination, and to both of these drawbacks the Association strongly objected.

Consequently at the beginning of the Eighties the war was recommenced; the more direct aim of the Association now was to get established a completely unified service—an Army Medical Corps—and to secure for its officers substantive, not merely relative rank, the advantages of which had become more shadowy than ever. Opponents of the latter change declared that it was ridiculous for medical men to want military titles, while the Association held that the military mind was so constituted as to make them essential. A medical man working in the army should not have to depend solely on the force of his personality for the position he occupied among other officers and the influence he exercised over the men, but would always have to do so until he possessed the only thing that either officers or men really understood, namely, substantive rank.

The fight over this particular question reached its height about 1887, when the Director-General for the time being attended an annual meeting of the Association, and after stating that the public services were greatly indebted to it for what it had been doing, endeavoured to dissuade it from insisting on this particular claim. Though the Director-General was supported by one or two other senior officers who were present the Association was not fully convinced that he was right, and therefore decided

to address personal inquiries as to their views on the point to all medical officers in the army at home and abroad. It received about 800 answers, and having analysed them decided to continue to press for this particular reform.

The work then done resulted in the appointment of a departmental committee, which, at the beginning of the Nineties, among other recommendations, suggested that the question of substantive rank should be settled by the accord of a composite title, half military, half professional, to all ranks. Due effect was given to this suggestion, but the Army Medical Service was still merely a "department," and there was reason to believe that the rank accorded was not regarded either by the War Office itself or the army as a whole as placing medical officers on equal terms with other officers. The "camp follower" conception still prevailed.

Consequently the Association returned to the charge, and the following five or six years proved a very strenuous period, despite the fact that the Government well recognized the strength of the forces arrayed against it. The Association was fighting for several minor improvements, among them being the limitation of a tour of foreign service to five years and greater facilities in the matter of exchanges. But its principal object was to get the Army Medical Service transformed from a unified department into a corps such as that formed by the Royal Engineers, and eventually it got its way, the intention of the Government to create the Royal Army Medical Corps and accord its officers ordinary military titles being announced by Lord Lansdowne in 1898.

Some four years later—after the South African war—some alterations in the internal organization of the corps were seen to be necessary, and the work then done eventually led to the service being provided with its existing attractive qualities. We use the term "eventually" because some of the modifications originally proposed were of a kind materially different to those finally adopted, and we are betraying what is now simply a *secret de Polichinelle* if we say that some of the features to which the corps owes its present popularity were introduced at the instance of the Association.

The Medical Service R.N.

Since the reconstitution of the British Medical Association on its present basis attention to the interests of medical men in the navy, the army, and the Indian Medical Service has been the duty of a special committee, the Naval and Military Committee. Another standing committee, formerly named the Colonial (now the Dominions) Committee, has among its duties that of performing a corresponding task in respect of those who belong to the various medical services of Crown colonies, including the West African Medical Staff.

Both the committees have done a very great deal of useful work, but have been enabled to perform it with great quietness, thanks to the fact that the Government departments concerned in their operations have for many years past realized the strength that these committees have behind them. As a consequence it has become almost a routine practice for these committees to be informed when changes are in view, and it is only when any representations that they think it necessary to make fail in their object that disputes between the Association and the Government reach the surface. The circumstances that led to this useful state of affairs have, in the case of the War Office, already been described, and those relating to the other services are of a corresponding order.

The Association began to fight for medical officers in the navy at the same date as it began to fight for those belonging to the army, and within a few years it began to fight also for medical men in the employment of the Indian Government. The campaigns undertaken on their behalf were equally determined, but only a very cursory account can be given of them, since the fighting required was as a rule of a somewhat different character and does not lend itself to brief description. In its contest with the War Office the Association had to deal not only with the natural objection of nearly all Governments towards making any alteration of system which would mean spending more money, and the dull conservatism which prevented recognition of the need of any progress at all,

but also with a very strong class feeling, which from beginning to end of the contest was perhaps the chief stumbling-block.

The latter influence also played a part at one time in the affairs of the navy, but it began to fade out when, in the early Sixties, admission by nomination was abolished, and seems to have been entirely extinct within fifteen years or so. Meantime a great fight had been going on over questions of pay, study leave, relative rank, allowances, the right of naval medical officers to occupy their time as they pleased on shore, and terms of retirement. Terms of peace were arranged in 1875, when, after a series of memorials and deputations, the Admiralty issued a new warrant dealing with the medical department of the navy. This made a variety of concessions, but the most important of them was, perhaps, that which accorded ward-room rank and ward-room privileges to all medical officers, whatever their seniority. The extent of the victory will be best gauged, perhaps, by the following extract from a letter published in the *JOURNAL* in the year mentioned:

One can now conscientiously advise any medical man to enter the service. A young man now enters the service with befitting rank, exceptionally good pay, and every requisite to make him feel that he is in the position of a gentleman. One word in conclusion as to the part played by the Association and your *JOURNAL* throughout the struggle. We all feel that had it not been for the powerful assistance we derived from our professional brethren who so kindly espoused our cause and made their voice heard, we might long have remained unemancipated, and it is to be hoped that naval medical officers will never forget what is due to the British Medical Association for what it has done during the eventful years 1874-1875.

There were several other letters of the same type, but this will suffice to show that at that time naval medical officers considered they had reason to be satisfied with their position. At later dates various causes of discontent arose, and led to the Association having to bring its influence to bear on several occasions. The most recent of these occurred not many years ago when the Admiralty showed a strong disposition to burke the findings of a commission appointed to consider the affairs of its naval department. Effect, however, was given to most of these some two years ago by the issue of regulations which secured for naval medical officers increased pay and many of the advantages already enjoyed by their fellows in the army. The changes have not succeeded so far in restoring to the medical service of the Royal Navy the popularity which it at one time enjoyed, but it is fair to say that the Admiralty seems disposed to show goodwill in the matter, and the Association has recently been asked for suggestions. These it has now made, and they will certainly—if put into operation—alter the present somewhat unhappy condition of affairs.

The Indian Medical Service.

In the difficulties of the Indian Medical Service class influences have never played any part. Officers belonging to it have always enjoyed an excellent position, and the Government of India has not failed to express its high opinion of the work done by the service. Nevertheless, there have been plenty of occasions when the support of the Association has been eminently necessary.

At one time, for instance, it seemed not improbable that a serious attempt would be made to abolish the service altogether, or make it a kind of appendage to the medical department of the British army; at another, in the early Eighties, a Viceroy proposed by a stroke of the pen to abolish about two-thirds of all the prizes of the department; and again, in the Nineties, a good deal of activity was required to secure for officers of this service just compensation for the loss entailed on them by the fall in exchange values and the gradually increasing expense of Indian life. There has, in short, been plenty for the Association to do in connexion with this service, and its task, unfortunately, is by no means ended.

It may be added that during the last few years the Government has exhibited an unhappy tendency to interfere in various pettifoggish fashions with the private affairs, and many of the privileges previously enjoyed by the service, and the prospects offered by it are much less satisfactory than they used to be. It is impossible to discuss this question fully here. It may be stated, however, that there is a movement in favour of displacing

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