

**Memorial concerning the present state of military and naval surgery.  
Addressed several years ago to the Right Honourable Earl Spencer, First  
Lord of the Admiralty : and now submitted to the public / by John Bell.**

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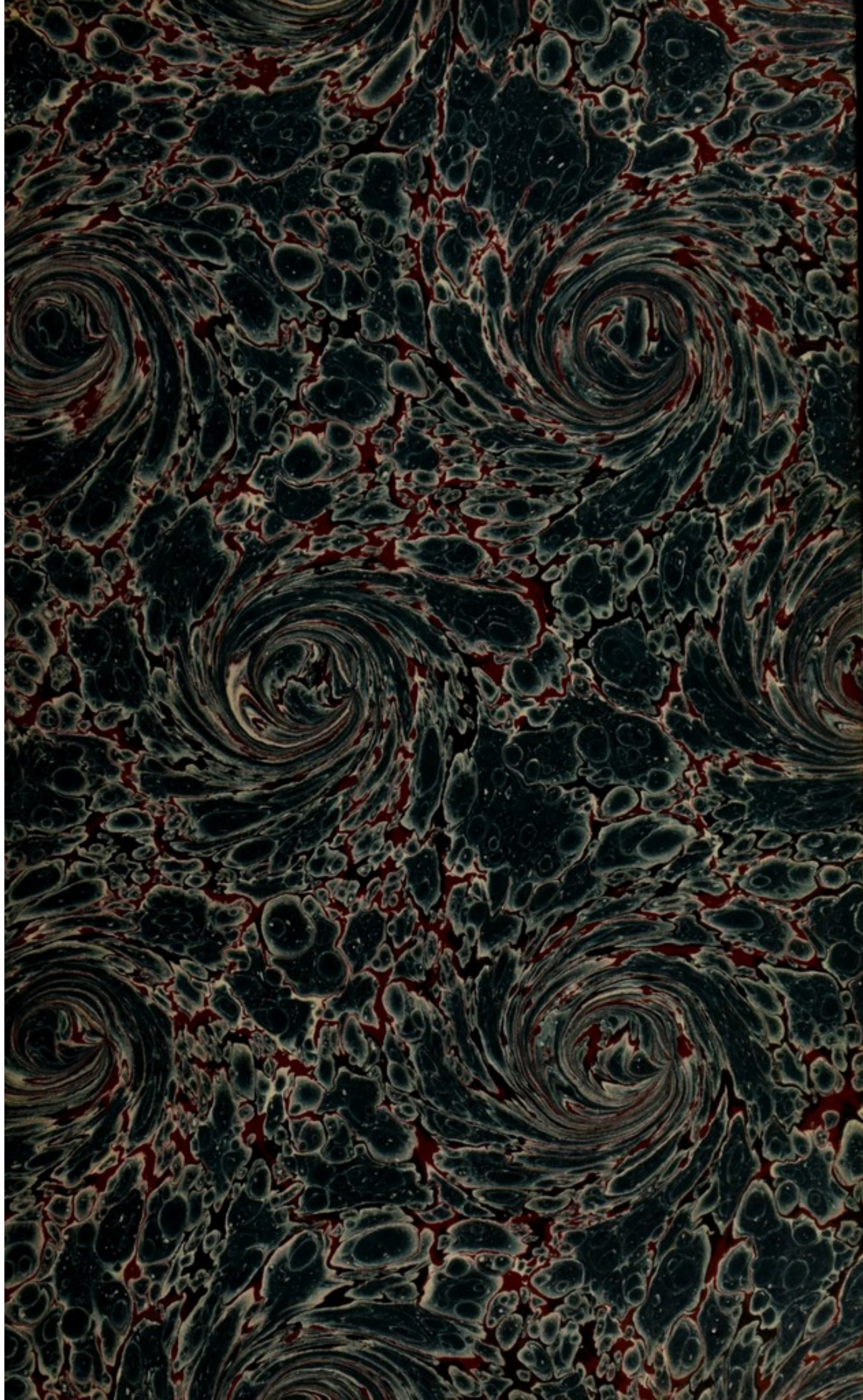
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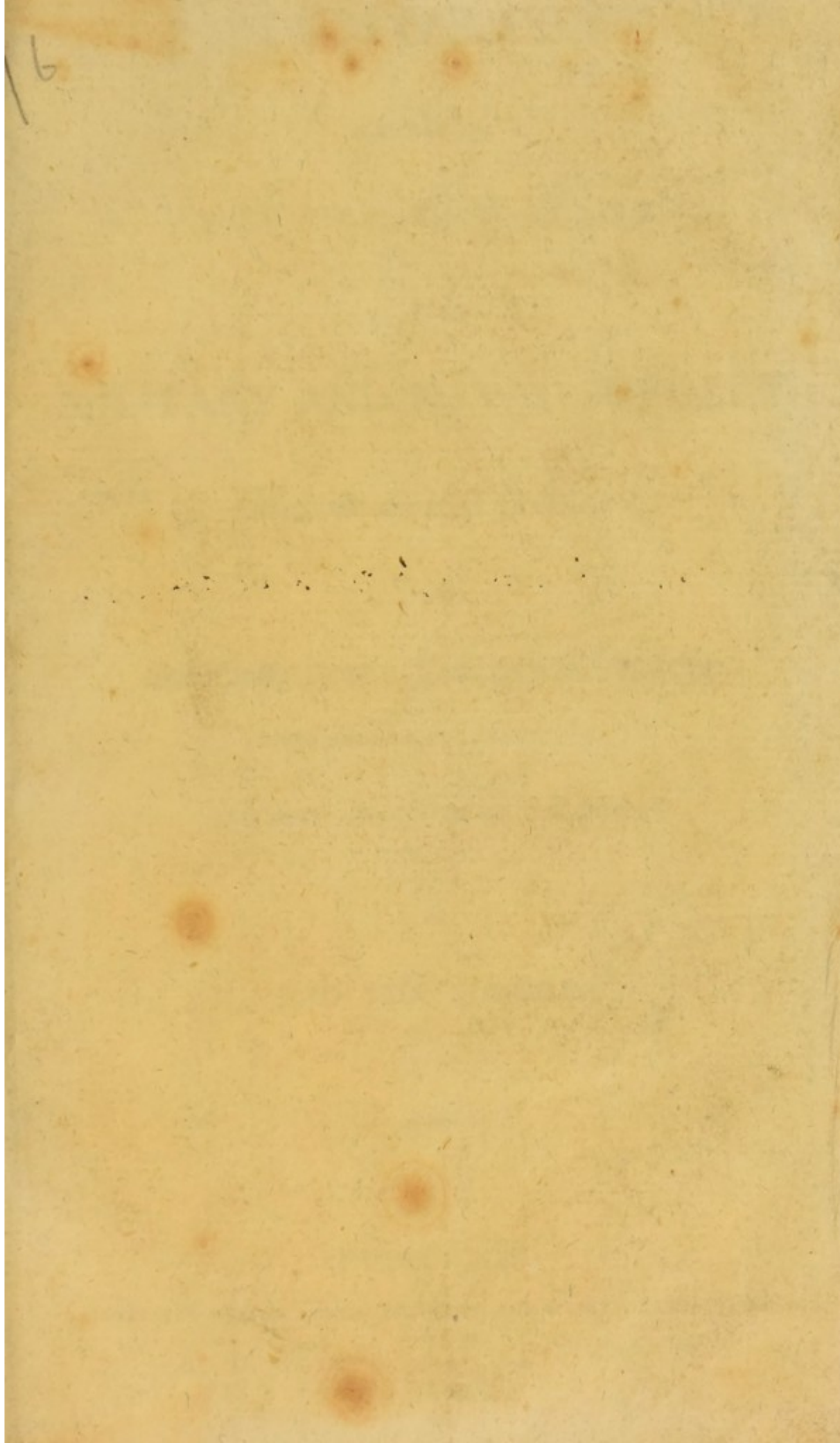


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MEMORIAL  
CONCERNING  
THE PRESENT STATE  
OF  
MILITARY AND NAVAL SURGERY.

ADDRESSED SEVERAL YEARS AGO

TO

THE RIGHT HONOURABLE EARL SPENCER,

FIRST LORD OF THE ADMIRALTY ;

*AND NOW SUBMITTED TO THE PUBLIC.*

BY

JOHN BELL, SURGEON.

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EDINBURGH:

PRINTED FOR MESSRS. LONGMAN & REES, AND MESSRS. CADELL & DAVIES,  
LONDON.

1800.



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*John Bell*



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MEMORIAL

ON

THE PRESENT STATE

OF

NAVAL AND MILITARY SURGERY;

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Vetus querela est, inde usque, ab optimis et prudentissimis seculis deducta, respublicas circa leges quidem nimium Satagere, circa Educationem indiligentes esse.

BACON.

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MY LORD,

I BEG leave to address your Lordship on a subject interesting to every man of humane feelings, and where every man having such feelings will claim a privilege above all ceremony. Yet I do not say this with the design of avoiding those expressions of respect and deference which are due to rank and station, and which are especially becoming in one who obtrudes his advice: it is from a per-



suasion of your Lordship's goodness that I venture to address you ; and I am sensible, that to do so in the most respectful language, to plead the cause of humanity with zeal, but with respect and deference, with all that submission which may bespeak your Lordship's good opinion, can have in it nothing that is degrading.

Nor shall I affect a sensibility I do not feel ; sincerity and truth are the only apologies for this intrusion. I am not one of those unindustrious, idle, turbulent men, who delight in complaining, changing and reforming ; but I will mention without reserve some things which are avowedly wrong in a department of the public service, inferior to none in importance. And I fear that I can prefer no complaint to your Lordship concerning the present state of Naval and Military Surgery, which will not be acknowledged by thousands, and denied by none ! no one who has seen even a little service, who is not inured by use to sights of misery, whose heart is not shut against the compunctious visitings of nature ; no thinking nor feeling man will deny, that this department needs to be reformed.

This is not, my Lord, the language of affected sensibility, brooding over imaginary ills, nor is it the language of disappointment. I have not to complain of ill requitted services or merit long neglected. From those scenes of unceasing contention and soli-



citation, where clamours for promotion are heard, not marked, I am too far removed to feel the benefit of your Lordship's favour. I have, I am conscious, no selfish views, no mean nor worldly cravings, no desires that I would not be proud to avow, not a wish but for the public good ; and yet I fear, that after having thus obtruded my advice, I am going to suffer a more cruel disappointment than if I were now employed in soliciting some petty interest of my own.

One claim I have to your Lordship's notice, and I will urge it for the sake of that good cause which I have espoused. I have studied my profession with honest diligence, and have applied myself also to the study of Naval and Military Surgery with particular care. At one time, my Lord, I attended the wounded seamen in the hospitals of Sheerness and Yarmouth, with the humanity and industry of one who loves his profession, who, while he is employed in instructing others, is not unwilling to improve his own knowledge. This should avail me much ; for when proposals, such as I am now to lay before your Lordship, arise from sincere motives, from no vain presumptuous speculating turn of mind ; when a general scheme of education is proposed by one who has himself studied with becoming diligence ; his advice, in matters relating to his own profession, should be heard with some degree of favour.



Besides, this is an appeal in behalf of a great department of my profession, a numerous class of useful men, who should be learned, whose education is of infinite importance to the state, who mix in every department of public and private life ; it is an appeal, my Lord, which no one would care to make who were not sincere, which no man would be able to make who had not studied those matters with diligence. When I thus break through the restraints and many indescribable feelings natural to my private station, it can be only with a sincere desire of being useful ; personal interest I can have none ; and unless I much abuse the privileges of a free citizen, a common observer of public matters, a man of some professional knowledge, your Lordship and the world will allow me the benefit of this common plea : “ that I am acting from the best of motives.”

The medical department of the public service requires men who, as physicians, are respectable for their general knowledge ; who as surgeons are perfectly dexterous, well instructed in anatomy, and accustomed to operations ! active, humane, sensible and diligent men are required ! men inventive in exigencies, acquainted with all the resources of their art. But it is not, my Lord, by a slight, irregular or accidental education that such talents and dispositions can be acquired ; that they are required I am



persuaded from this circumstance, that those men who have been in the service, although wanting that broad and general education which is the foundation of all improvement, have yet become active, humane, prudent, diligent and fertile in resources.

It is the rule of the service, that every one shall pass certain trials before he be received as a surgeon in his Majesty's fleets or armies; but if it be really a matter of importance to call every young man before this tribunal of examiners, it must be infinitely more important to inquire, what public opportunities he has had before he appears in this court of inquisition. Is he the son of a gentleman? Has he lived in a family where he could learn industry, morals and virtue, by example? Or has he been for years the settled member of a public school, where the care and superintendence of his teachers might supply those almost unsuppliable wants? No! He has been thrown from his childhood almost an orphan upon the world! A young man for example in no affluent circumstances struggles for one or two years to obtain the most ordinary points of knowledge; or without knowledge, he learns by rote to answer the common questions. He undergoes a slight examination, is allowed a diploma, and goes along with troops to the most sickly climates, on the most dangerous service. He is at first, indeed, received only as a mate, but by gradation he becomes



a surgeon, and too soon he finds himself in a situation of responsibility and difficulty, to which his highest ambition had not dared to aspire.

When such young men return after some years, they have indeed acquired a knowledge of the service, and of the world, but not of their profession; they have acquired all that experience could give them, but still they feel the defects of their original education, and like men of sense and honour, they strive to mend those defects; they return to the various schools of medicine to have knowledge and professional learning grafted upon experience, because they were hurried into the world too early to have their experience founded on previous knowledge.

This, and much more, my Lord, than I dare mention on the present occasion, would be prevented and reformed by instituting a National School. A School of Naval and Military Surgery would be more effectual in preserving the lives of our countrymen, than all the hospitals, civil or military, that have ever been endowed; it would be an institution humane, charitable and useful, above all others; it would be an object almost of national gratitude. A School of Military Surgery would make heads as well as hands; it would infuse energy into the duties of every hospital, and would give due effect to the expenditures of Government; it would breed men



worthy of being employed, and would receive them again after their return from foreign service. Such an institute would become a society, not of schoolmen and theorists, but of men who had mixed with the world ; who, after having been absent on service, would return to the school to perfect their studies, and to consolidate their knowledge ! There the army and navy surgeons would find opportunities of reading, dissecting, conversing on medical subjects, and would meet unexpectedly with friends from all quarters of the world, endeared by the recollection of former services and hardships, and still more by present pursuits. A National School would thus become a point of conflux for many streams of knowledge ; it would be a place of study as well as of teaching ; it would be a busy centre for the medical department, and would give Government a command at all times of men thoroughly qualified for every line of service. I do affirm it would be an honour to this country, as the want of it is a dishonour ; it would be more subservient to the business of the state, and to the purposes of humanity, than any college ever was to the cause of religion or science.

From the institution of a National School of Naval and Military Surgery, I have imagined, and it is no dream, incalculable benefits to individuals, to the profession, and to the state. I am indeed surprised that it has not been a chief object with the



ministers of this country, and yet I am doubtful how the proposal may be received by those accustomed to judge of high matters. With such thoughts labouring in my mind, and with the entire persuasion that your Lordship will be delighted with whatever promises a public good, I must write with a degree of enthusiasm, in regard to the main object of my address, and with a perfect freedom in all other respects, which your Lordship knows how to excuse, perhaps to approve. Thus, my Lord, I begin, and leave off without proceeding to those proofs which I cannot but give unwillingly.

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How shall I venture to tell you of the melancholy state into which the public service has fallen? It never was respectable, it is now disgraceful. Things are truly come to such a pass, that to point out the means of reformation must be a great relief. No plan of national education has ever been proposed. Every other branch of our profession is taught, apart and carefully, while Military Surgery, the most peculiar of all departments, has been left to chance.

When a young man enters into the Navy, his education is but ill begun, and cannot improve. He is put down into a hole, there to remain for years. He is deprived of all communication, of all desire of knowledge. To breathe the vital air, he must



live in the promiscuous conversation of a ward-room. Politics, history, anecdote, news; every thing is heard there but that which interests him most, his profession! His youthful ambition is dead; his profession is forgotten; his first proud feelings, which sprung up with the first dawnings of knowledge, are buried there; his mind is vacant and powerless; "and all his precious hours are running down to waste."

To the life of a navy surgeon there are, God knows, no seductions! Nothing, as it now stands, can drive a young man into such a service, but want of education, or want of friends; nothing can support him, even for a short term of years, through the labours and difficulties of this way of life, but a love of his profession, and a sense of duty above all obstacles; hardly can any thing retain him in a service so little honoured or respected; indeed he never feels himself till he leaves it, returns to school, and begins his education anew! Those very pensions which Government has held out as permanent rewards, are but as bribes for such young surgeons to continue their services only in the days of their ignorance, and to retire when they become really fit for service; they complete their education with the accumulated wages of service which they could not perform; when their education is in some degree renewed, when they are fit to be received



any where but in the fleet, they prefer the permanent establishment of village surgeon, in some remote and miserable place, to the service of the State; plainly declaring for that profession, to which they have given up the very prime and vigour of their lives, a degree of contempt, which, were it needful, I should never be able to express.

Be assured, my Lord, that while Government strives to attach men to its service ; to lead them up to the knowledge of a difficult profession, through all the intricacies of a learned science, by money alone ! it cannot succeed. Nor will men ever delight in a profession which is not made respectable, honourable, and useful. Men trained to the service as officers, find themselves entered into a way of life full of danger, but full of honour ; for this sake they love it ; and they are separated from all other professions by almost insurmountable barriers. But ours is a profession where a thousand ways are open to ambition : every situation is easy and gainful, compared with this of the Navy ; and from year to year, our fleets, are thoroughly drained of those whom Government should wish to retain.

Indeed, my Lord, this is a serious business, and men willing to find, in all that is done, nothing but negligence and waste, will say, in derision, “ Here now we see, how Government may, by a mean economy, ruin the most important of all establish-



ments, and bring matters to such a pass, that young men of the lowest education, of the slenderest means, shall refuse the service; daily advertisements shall be quite neglected; examination shall fall into utter disuse, and all shall be promiscuously received! The British seaman shall be more helpless in the day of battle, than the peasant employed only in peaceful labours, for the poor man provides from his hard-earned pittance help for himself and family in the hour of illness, while the most dangerous service hardly extorts from such a government even the appearance of care."

These, my Lord, are the reproaches to which a government rather uninstructed than careless, is unhappily exposed; reproaches which are distressing only as they are true. Perhaps in a whole fleet there are few surgeons mates, possibly not one, who is able to perform the greater operations of surgery. It has happened, that, after the most earnest entreaties of the officers, of the surgeon, of every one concerned, a ship of the line has gone into battle without one assistant on board! no, not one to screw a tourniquet, to tie an artery, to hold a shattered stump, to put a piece of lint to a bleeding wound! These things, my Lord, must make a strong impression on the public mind, and must create very awful feelings in those who are concerned. Had those shots which have passed so often through the cock-



pit, and which have killed so many, who being already wounded, had retired to the place of safety! had one of those shots struck the surgeon; what must have been the condition of those who survived him! Inevitable death from wounds which are not deadly, is an awful sentence! who can bear it? Let the man of the most determined spirit, my Lord, think but of this! and, if he have not that disregard of life which deprives mere animal courage of all praise, let him say with what heart he can go into the midst of battle, where in a few moments all is horror, confusion, and dismay; where the danger of the hour makes no respect of persons; where the high and the lowly are laid side by side, dead and dying! and the surgeon stands for a moment in his place, alone, fixed and motionless, with folded hands, in horror and deep astonishment at the situation in which he finds himself! “Can such things be, and you that do behold them still preserve the natural ruby of your cheeks?”

Such are really the dangers to which that order of men are exposed, upon whom, more than ever in the annals of this empire, the very empire itself and

Mr. Young, surgeon of the *Ardent*, was the only medical person on board that ship during the action with the Dutch Fleet, on the 11th of October. His Captain was killed the first broadside; and the ship, by repeated explosions, was in great confusion. The carnage was very great. He was not able to perform any operations.



all its future annals depends. At one period of time we might have said " Wars of conquest have surely ceased ;" but we have lived to see conquest running her headlong course, overturning empires and states ! and too well we know, that while we continue a maritime power, wars of commerce will never cease. We must maintain ourselves as a maritime power ! this is the only means for internal safety in the present, and the only hope of our future success, even of our existence as a commercial state. Stations must be multiplied ; new hospitals must be built ; the establishment of our marine must be strengthened on every side ; and nothing will give more splendour to the cares of Government, nor be more grateful to the public mind, than to see the medical department raised, improved, may I not say, created anew ?

But I am in danger, my Lord, of pursuing with declamatory warmth a subject which should be calmly reasoned ; and I am sensible, that such a manner of writing would ill agree with the respect I bear your Lordship, or the plain and simple matter I have undertaken to explain. I will proceed, then, to reduce my discourse to such simple order as will prevent all possibility of my imposing on others or deceiving myself ; for to this plain question does it come at last : Is examination a perfect test of medical abilities ? Is it wiser, safer, more



reputable for Government, to trust to this single test, and to hire as surgeons for the public service the pupils of any school, or of no school ! or to ensure to the State a body of well educated men, thoroughly instructed not only in surgery, but in military surgery ; not only in the cure and prevention of diseases, but in the cure and prevention of the diseases peculiar to those climates which are most destructive to our soldiers and sailors ?

1st, In fleets and armies, medicine is not, as in great cities, a piece of idleness and indulgence. The diseases of camps and hospitals are not the nervous languors of the luxurious ! they are epidemic and infectious diseases, which sweep away our fellow-subjects by thousands ! in a few weeks in Autumn, the flower of an army disappears. In such service then, my Lord, the army surgeon holds no sinecure place, but both by his dangers and his actual labours, earns his bread dearly ; and the abilities, activity, and original education of the Medical Staff, should be matters of no slight consideration with Government.

2d, Good surgeons, my Lord, are the only part of the war establishment which money cannot procure. Money and impress-warrants will procure soldiers and sailors ; Exchequer bills will equip fleets, and transport armies ; but good surgeons cannot be bought. Either surgery is no science, or it is of peculiar importance in the public ser-



vice ; to have surgeons of the ordinary description, it is indeed sufficient to announce at the commencement of a war, that their salaries will be augmented ; but to have good surgeons, men worthy of those salaries, men deserving of being honoured with any charge in the public service of the State ; they must be formed by a long and careful education. As well might Government expect to find generals in the ranks, as military surgeons in a country where there is no public school.

3d, To become equal even to the ordinary duties of their station, army surgeons should be trained for years to the peculiar studies of that department ; they should be encouraged by good opportunities ; they should be bred under good and faithful teachers ; they should be made members of a National School : There, their education should be free of expence ; they should have a common hall, and the use of a library ; they should have demonstrations of anatomy ; lectures on medicine, and on military surgery, dissections, and the opportunity of performing operations upon the dead body ; in a school so conducted, they would both find themselves called to the study of a peculiar profession, and would see that profession supported in an honourable and respectable rank.

4th, In other Schools of Medicine, it may be observed, that those young men only who are destined for the ordinary practice of the medical profession,



are well supported in their views and plans of study. One, when his education is completed, is to assist a father or a brother in business; another is to enter into partnership with some friend; another is to return to his relations abroad; another is to settle in his native place; and each of these having his particular destination in life, is supported by appropriate and regular funds. But how is the young man supported who is to enter into the navy or army? Very slender are his appointments; his education is limited and imperfect; he finds himself oppressive to his friends, and enters at once into the service from hard necessity and the difficulty of pursuing his studies; he enters, my Lord, into the public service, not from enthusiasm for that service, but in despair.

5th, I might appeal to the Public, whether young men entering into the navy and army, have in general serious or manly thoughts of their profession, or time to qualify themselves for service, or means for completing their regular studies. They pass, perhaps, one or two years at some medical school, while they are yet boys of fifteen or seventeen years of age, incapable of serious reflections, and thinking least of all of any regular plan of education. They are allowed to pass as mates; they rise by gradation to be surgeons; and if before being thus promoted they are examined a second time, it is after a few years of boisterous service in promiscuous com-



pany, and in situations where they could not improve.

Now, though all the medical boards that ever sat in judgment on the qualifications of young men, should pronounce these to be good surgeons, I should never think otherwise than I do at this moment, of men thus educated.

6th, Public and regular education being neglected, what will examinations avail? Truly nothing! because, names of parts is not anatomy, and describing amputation is not performing it! because, the apprehension of having a trial to undergo at some very distant and uncertain period, has no terrors for a young man, nor can this salutary fear of punishment and disgrace, support, for years, a spirit of diligence and study! Young men delight more in books of questions and answers, than in books of science! and a volume of dialogues on anatomy, and of questions in surgery, will enable any one to appear at Surgeons Hall, if he have but a quick ear and a retentive memory: It is thus that the most ignorant creature may defy the scrutiny of the wisest and most penetrating.

7th, We must not blame examiners for capriciousness, carelessness, partiality, or undue favour; do what they will, they cannot make examination a just criterion of medical knowledge. I have known the most ignorant answer with petulance and fluency;



I have seen men of unquestionable abilities stand before their inferiors like criminals, and answer like fools. Examinations are no more a test of medical skill, than the rack and torture is a test of truth.

8th, But to you, my Lord, who are unacquainted with those things, it must still appear surprising, that examination should fail to distinguish the ignorant from the studious. But, my Lord, if examinations be carelessly conducted, they must be plainly useless, and if severe, they do but put young men upon lying expedients.

When a candidate prepares himself for examination, he forsakes the study of his profession, and turns himself to tasks from which his better judgment revolts ; he keeps to his chamber for a few days or a few weeks, no matter how long, the longer the worse, and there he learns by rote a volume of questions and answers in print or in manuscript, carefully compiled for the encouragement of ignorance. The list of questions at a medical board is as regular as the Rubric ; and never did slothful priest repeat his breviary in an unknown tongue more mechanically or with less reverence, than the ordinary candidates for diplomas repeat their unmeaning lessons.

Such questions, my Lord, have no relation to our profession, or almost none. Were it upon subjects of practical importance relating to the daily



duties of the profession that surgeons were examined, their knowledge surely should be improved by experience and the continued practice of those duties. But take the same men after five years of service, bring them again before a board to be examined, and they will be unable to answer one single question. Then it must be, that either they have gone backwards in the knowledge of their profession, during that very course of experience which is thought to improve knowledge, or it was words—words only, that they recited so fluently at their first examination, and they have forgotten the words. It is most certain, my Lord, that slight examinations are but an encouragement to ignorance, while severe examinations, like cruel laws, do not deter but rather harden offenders, who rather strive to evade the punishment than to live so as not to deserve it.

9th, Examinators are besides seduced into a mistaken lenity by this circumstance, that there seem to be certain gradations of rank and responsibility in the public service, proportioned to certain degrees of proficiency in study; and a young man after undergoing a very slight trial, is declared to be qualified, not as a surgeon nor as a mate! but as third or fourth mate of a first rate. What is this? a mockery! who shall pretend to foretel or limit the degree of danger arising from any degree of igno-



rance? Who shall prevent the degree of ignorance thus measured with critical precision, from being fatal to many of those who have the misfortune first to fall into the hands of such a person? Who shall be answerable for keeping this fourth mate of a first rate in that particular rank which has been assigned him? Or who can venture to say that this fourth mate will always have other mates above him, or may not in some unlucky hour be the only surgeon among a thousand men in the time of battle? Those who thus appoint by examination the fourth mate of a first rate, do not declare that he is qualified for being a mate in the navy, they protest only that he is not fit to be a first, second, or even third mate. Such distinctions may indeed appear to convey some idea of the person being qualified for certain departments; but I fear, that in our profession, where, in certain circumstances, the slightest error is fatal, a man who is not, in regard to all the common duties of the profession, fit for every thing! is fit for nothing.

Often have I heard the president of a board of examiners address a young man in the following terms: "You seem, Sir, to be exceedingly ignorant in many very important matters, but you are young and may improve, we have granted you a diploma with this expectation; and we lay our injunctions upon you to be diligent." Diligent! where? In a



cock-pit? in a camp? in a garrison? amidst the storms of the Atlantic Ocean, or under the Torrid Zone, where, to breath and live, is almost a labour.

10th, But there are times and seasons when even this form falls almost into disuse. The country is suddenly involved in war. The state having no School of Military Surgery is quite unprovided, and yet surgeons of some description must be procured. Is this a time for examiners to be nice in their selection? No, my Lord, it is the occasion on which uneducated men, or rather uneducated boys, swarm up from all parts of the country, and to the disgrace of humanity and science, assume the name and office of surgeons. The want of medical assistance is publicly acknowledged; offers of advanced pay are proposed in daily advertisements; the pay is augmented in exact proportion as the usual inquiry into the education and talents of candidates is relaxed. What is this but an invitation to the young, the needy, the adventurous! to enter into situations for which they are quite unequal? "Why, this is hire, and salary, for murder."

Pardon, my Lord, the boldness of these representations; for if, in what I say, there be one word of truth, the system is wrong in all its essential parts. Necessity is the reason for men entering into the service; pay, and perquisites, and pensions, are the motives for continuing in it a few years. Examina-



tion, which should be but a check on education, is regarded as the sole test of merit, and as sufficient to enforce diligence. A Military School of Surgery has not even been proposed! but every young man is allowed, after one or two years of desultory study, to enter into this department; and these very men, when they are to retire to private practice, when they mean to prepare themselves for becoming surgeons of a village! return to school.

You cannot suppose, my Lord, that this education can be compared with that which might be obtained in a regular institute of Military Surgery; that men neglected in the first principles of study, who return after years of service with this consciousness preying upon their minds, could stand in competition with the regular and approved scholars of a National School, who had for years studied a peculiar profession under the care of appointed teachers; who had long looked forward to the public service as their natural and appointed duty; who considered Military Surgery, the department in which they were educated, as that in which they were to excel.

Nor has this country the full benefit of the noble opportunities which its peculiar situation holds out to medical men. Britain has colonies in all climates; her language and commerce are extended over all quarters of the world; and a nation thus



enterprising cannot but be involved in frequent wars. This country, then, which breeds sailors and soldiers inferior to none in spirit and discipline, should naturally have surgeons inferior to none in humanity and skill. Their writings should be admired abroad, and the school in which they were educated should be a model for the schools of other countries.

But I will no longer suppose, my Lord, that a measure of such useful and liberal policy can be long neglected, since it would be a benefit to the country, as well as a support to the state. Suppose a young man educated in a Military School, impressed with a love of his profession, and enabled by a sound education to profit by experience; suppose such a man to go out upon foreign service, and to feel actually the influence of various climates and seasons, to remark the causes from which troops in certain situations sicken and die, and to be employed in curing the fevers and other rapid and terrible diseases of hot climates, requiring the most active and intrepid practice! suppose him accustomed to the innumerable accidents, wounds, fractures, and dislocations which happen in actual service; suppose him also accustomed for years to be at once physician, surgeon, and apothecary, to a number of men in seasons of infection and danger! would not such a man, my Lord, upon returning to his native place, be respected and valued?



being initiated in preliminary studies, and well instructed in his profession, he would find business for every interval from duty ; he would improve continually ; he would, by his commerce with the world, learn to join the humanity and the manners of a gentleman with the learning of a physician. Now, I leave your Lordship to judge of the influence it would have on the community, were men thus perfectly educated in their profession to be found in every village ; intelligent and sensible men, owing their education and their very being to the liberal and dignified policy of Government.

Here, my Lord, I conclude my argument, and proceed to enumerate those propositions which I think I have proved ; for even in a discourse loose and desultory as this is, there must be principles. I have proved, that the education of every individual in the service of the state, should be conducted as if he were to arrive at the highest rank in his department ; that a perfect knowledge in all ordinary duties should be required, even from the lowest ranks of a profession, where the loss of life is the consequence of ignorance ; that colleges and universities account examination a test of diligence, only when the young men have studied several years under the immediate eye of the professors ; that for a department requiring, as this surely does, peculiar studies, a particular school should be instituted ; and, finally, that a regular and careful education, is the only



assurance to Government of having in their medical department men learned and zealous in their profession.

Allow me, my Lord, to urge one consideration more. Government cannot attach men to its service, nor train them to this peculiar profession, by pay only ; while, on the other hand, a public education, conducted on a liberal plan, and at the expence of the state (an expence which amounts after all but to a few salaries to a few teachers), would be a very high and flattering inducement ! To become members of a National School, would be itself a privilege ! and the chance of rising, by the force of abilities and genius, to be one of the teachers of the school, would be an object of generous emulation, and a noble reward for a life spent in the public service.

Unless you can fix the hopes and ambition of a young man on some great system of life, you never will obtain from him those voluntary and zealous services which no sense of mere duty and subordination can produce. IF YOU WOULD ENSURE HIS DILIGENCE, ENDOW HIM WITH KNOWLEDGE.

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It is easy for any enthusiast to imagine a splendid National Institute, when he has but to imagine ! but I, my Lord, do not so much despair of seeing a Military School of Surgery erected, as to give way to



imagination : I know my profession too well, I have too serious an impression of the importance of a National School, to propose any thing which cannot be easily accomplished : I have also, I trust, more discernment and real taste, than to overload with fantastic ornaments of learning and speculative science an important institution, designed for teaching young men the ordinary duties of their profession. If it were designed to train the pupils of such a school to more elegant or liberal studies, it should be only by the example of their teacher, by his manner of lecturing to them, and by the books put into their hands for their private reading.

I. The Professor of the Military School should teach with perfect care the essentials of Anatomy ; the great principles of Surgery he should found upon his anatomical lectures and dissections ; and all the great operations, all the accidents which each part of the body is liable to, all kinds of wounds, should be fully explained.

II. These general principles of the science should next be applied to the peculiar duties of the Military Surgeon ; the Professor of a Military School must teach carefully the peculiar nature of gunshot wounds.

III. He must deliver a short code of Military Medicine explaining the fluxes, fevers, spasms, and infectious diseases, and all the peculiar duties of the camp and hospital ; and he must explain the scurvy,



ulcers, infections, and all the disorders most frequent in hospitals, in ships of war, or in besieged cities, with detailed histories of the epidemics and plagues which have prevailed during the most remarkable sieges, or which have desolated countries in a state of war.

IV. He must instruct his pupils in Medical Geography, in a knowledge of the climates, seasons, coasts of various countries ; the manner of conducting soldiers on a foreign expedition, the general care of their health, the choice of encampments, and the forming of hospitals on shore ; how to attend an army in the field, how to convert churches, granaries, public buildings, into occasional hospitals, how to lay the wounded in besieged towns, how to carry them off the field, or how to convey them along with a retreating army.

V. With these, must be taught military economics, diet, general medicine, exercise, clothing, and all methods of preventing disease. Without this knowledge, no man is entitled to serve : How few are thus taught ? How few then are fit for service ? How few are there who are not conscious of those defects in their general education, which no diligence of their own can ever do away ?

VI. Every pupil of the School, before he were permitted to leave it, should be made to perform, under the inspection of the master or assistants of the School, a regular course of surgical operations upon



one dead body. His companions, attending in their places, benefiting by the lessons he gets, and operating in their turns.

And in the School there should be models and plans of ships, camps, and hospitals ; wind, sails, and ventilators ; waggons for conveying wounded men ; beds, fracture-boxes, operation-tables, medicine-chests, and every machine or instrument that may be useful to the Military Surgeon.

VII. The last, and not the least important duty of the teacher, should be to point out for his pupils a future plan of study, to make for them a selection of books ; to deliver critical and practical observations on those which are to be most used. The teacher should not only instruct his pupils for the present, but select objects for their future study. He should teach them this truth, that he only begins that education which they must complete by their own industry. He must show them how to think for themselves, and then he may hope to reap in his turn the fruit of their labours, and live to see their observations and cases published under his own care ; he might, having himself previously published a regular book of anatomy and surgery, see the maxims of it enforced and illustrated by cases and observations of his pupils ; and, working along with them, he might thus perpetuate the institution, by publishing the WORKS of the MILITARY SCHOOL.



To perform his duties with spirit and energy, his place must look like what it is ; the centre of a great school, standing in an eminent and respectable station, whence well instructed surgeons are continually going out on every line of service, and returning the inestimable benefit of a good education, with those contributions of knowledge for which they are well prepared, which they are employed in collecting in various parts of the world, which they send willingly to that School with which they are still closely allied.

The Professor must in all respects have the perfect command of his school. He should have a LECTURE-ROOM, capable of being occasionally enlarged ; a DISSECTING-ROOM proportioned to so great a purpose, wisely conducted, no doubt, and modestly, but under the absolute protection of the law ; a LIBRARY continually increasing, by certain fees from occasional pupils ; a HOUSE OF ASSISTANTS, like the clerks of a great hospital, one keeper of the library, one a dissector for the class, two to inspect the pupils dissection, and two should be appointed to write, under the direction of the teacher, his lectures, his studies, the communications from his older pupils, and the extracts from books. The character of so rich an education to those young men whom the teacher might prefer to such stations, would ensure them all kinds of promotion, and would be such a reward as money could not equal.



But especially, he must have always a perfect command of his school ! a UNIFORM for those who are of the school, and who are to have the first seats. His pupils must come gratis to his school, and must take an oath " to be faithful to their studies ; to be serviceable to Government in every way ; to be diligent in all the occasional duties committed to their charge ; to employ their time in lectures, reading, dissections, till that period arrive in which they are to be appointed to service." Every one who came rather as a stranger to the military school should take his place behind the regular pupils, and pay fees to the institution, for the support of the library, and for defraying the general expence. Those who, having once taken the oath, wished leave the service, should pay up, upon forsaking the school, all their arrears of fees, and put off that uniform which is the badge of their attachment to the service of their country.

Let all that belong to the school have the privilege of attending some great hospital, or rather give some great hospital the privilege of having those pupils attend its operations (with a small fee), for such an attendance would almost create an hospital. Let the library be open daily ; let there be fires in all the rooms ; let them be made comfortable for study, and a sort of home for those attached to the school ; let the great volumes of anatomical plates lie always on the tables ; let books be if-



fued in circulation every week ; let there be duplicates, according to the judgment of the teacher, of every useful book ; let there be a respectable collection of books on the subject of our profession, and a few on history, politics, and general literature, for the amusement of leisure hours, and to give some energy to the minds of young men, teaching them to feel their importance in society, and their connexion with Government.

Each regiment, or ship of war, when not on service, should send one or two of the mates or assistants to the public school. They should never be allowed to languish in a village, or in a harbour, for their time is the property of the State ; and that time should be sacred to study, which is not employed in actual practice ! The ill effects of idleness in any way of life, and especially of temporary remissions of public, and especially of military duty, are well known.

By the institution of such a school, the whole corps of military surgeons, young and old, would be kept continually employed, and always, even in times of peace, ready for service. Those who were about to enter into this way of life, would begin a regular education ; and those who are at this moment engaged in service, might, by a perpetual circulation, pass through this school, have their education renewed, and be assimilated



with the whole. The school would be full in times of peace ; it would send out its surgeons with increased industry and knowledge, when we had declared war. The pupils of this school would be examined by a board of controul, where their teacher should have a seat, but no voice ; where he could have no other interest but that of instructing young men, so, as to answer like masters in their profession, even before they had begun to practise ; so, as almost to annul the formality of examinations, by their superior knowledge.

The master of such a school would spontaneously perform other and higher services ; he would have, from his very office, such energy, so high a sense of his public duties, such versatility of talent, that, in all emergencies, he would render important services to the state. He would plan hospitals ; would go to assist the sick and wounded ; would help in the detail of new establishments. Is it not distressing, that, when a fleet has suffered in some severe engagement, Government has no general surgeon, whose advice and services it can command ; that the wounded are abandoned to the carelessness of ignorant men, and shipwrecked, I may say, upon their native shores ?—Perhaps in certain seasons he might sail with fleets, or accompany armies, from a desire of further knowledge ; perhaps he would give occasional lectures at the setting out of any



great expedition, going down to meet with the surgeons of the fleet, or of the troops, to inquire about all their little wants; to see that they were indeed prepared at all points; to converse with them; to lecture to them. All these occasional duties he should do without expence to himself that he might do them easily; and they should be voluntary, that he might perform them with zeal.

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My Lord, I know too well that plans of national schools have been but the reveries of enthusiastic men; yet surely an institution having such objects as these, so expressly limited in its purpose, so entirely practicable, so sure of attaining its end, stands in the first rank among plans of national education. This is, to a state, the only security it ever can have of procuring well instructed and diligent men. Were such a school erected, promotion would no longer go by courtesy; examination would cease to be an unmeaning form; examiners, who are now afraid to question those whom they are sure to find ignorant (and yet dare not reject), would then examine severely, because they would find knowledge to grapple with, and would be able to select well instructed surgeons.

It is now well known, that there can be no other assurance of a man's abilities in his profession



but good education. We assure ourselves of a man's knowledge rather by his education, than by questions which are so often conned for the occasion, and repeated coldly, without interest, without understanding. No university trusts to this slippery test, but requires, even for ordinary studies, a peculiar and regular education continued for years. In this sense, a Military School should be a regular College; it should be erected in the centre of other schools; the pupils should have the choice of other teachers, and inducements to various and liberal studies. But, they should be early attached, and with sensible and sober views, to that service which now they fall into by chance and misfortune. They should be early trained to those parts of knowledge which now they learn from books, too late in their course of service to be of much use. They should be well read in those authors who now fall into their hands by a sort of accident. While they had their choice of other studies, they should feel themselves peculiarly responsible for their perfect acquaintance with all the lessons of the *Military School*. They should have, in short, every inducement to serve, but should feel no bondage in serving. They should be attached to the School only by the usefulness of their studies, but they should be allowed to leave it with no other forfeiture than that of losing their place and precedence.



For the studies of such a school, genius is not so highly necessary ; diligence alone is required ; in medicine, and in surgery, above all, enterprize is dangerous, and experiment almost guilty ! while that good sense which is so universally diffused, that plain knowledge which is so easily acquired, that moderation which industry, and the knowledge of plain and simple matters always begets, are sufficient for the ordinary occasions of life, and more to be prized, in my estimation, than the most splendid talents. How often is genius wild, ungovernable, dangerous ? How much, on the other hand, do we value the marks of industry, humanity, and modest knowledge ! sure tokens of a useful man ? And such, I am persuaded, would be the character of every pupil bred in the Military School.

In that school even the manners would be peculiar. It would be attended by young people who had begun to know care and misfortune ; who had lost the petulance of boys, and assumed the serious and sensible deportment of men ; the importance of their occupations would repress that spirit of disputation, that passion for politics, false philosophy, irreligion, and atheism ! the open licentious and proud profession of which, as meritorious and liberal doctrines, are but too much observable in schools of medicine. A school of young men beginning to study for the medical service, mixed with others who had return-



ed from abroad, would compose, under sensible teachers, a respectable and improving society ; where the older pupils, renewing their studies, their dissections and readings in the library of the school, would show the younger members an example of diligence ; while their employment of correcting their journals of diseases, composed while they were abroad, and reading their cases and observations in evening societies of the pupils, would raise the spirit of improvement, and the love of the service to enthusiasm.

A bill of incorporation, my Lord, is freely granted to the most insignificant society of individuals wishing to hold common property, or to the lowest mechanics desirous of monopolizing their own trade. Give then to the surgeons of the army and navy a Corporation and a School, and they will not I am confident be insensible of the return it is proper for them to make, nor of the station and respectability which it becomes them to support. “ He that delicately bringeth up his servant from a child, shall have him become his son at length.”

I have ventured, my Lord, to express, yet I hope without presumption or rudeness, a firm opinion of the dignity of the profession in which it is my lot to be engaged ; while that department of it which is connected with Government, far from being superior, or producing men conspicuous for talents



and virtue, has no public character, and is by no means supported in that state which the honour of the profession, and the cause of humanity require. The service is filled up with men too young, too imperfectly educated to support their profession; and when at last even the young and inexperienced are no longer attracted by the most liberal offers of Government; when not only talents and abilities, but men of any description, are wanting; when mere mechanical hands cannot be procured! I perceive the absolute necessity of some permanent institution to support this department of the service.

Our profession have been charged with disaffection. No, my Lord; but among many ignorant there are some learned. There are men in the medical departments of the army and navy, and, I trust, not a few, who have had a perfect education; who are capable of feeling for the honour of their profession, and of supporting it; capable of establishing, even by their own unassisted endeavours, that National School which the state of science and the welfare of the community, and even the interest of the lowest of their own order, require. Can such men go out upon dangerous service without feeling themselves ill supported in their duties? Can they obey the despotic orders of men ignorant of every thing like science without feeling themselves degraded? Have they a directory of men



of talents and learning to appeal to in all their difficulties? men capable of conducting the interest of the medical department? I believe they have not; and thence it is that many are dissatisfied, none disaffected!—without allowing this fair distinction, my Lord, with how ill a grace should this appeal come before your Lordship?

It is rarely by his knowledge in science that any man attains the command of this department; it is by gradation, and by patronage, that he is raised to it, after having spent much of his life in the drudgeries of practice; and behold, when he should give his whole mind and soul to the conducting of a great department, he is too much wedded to the pride and pomp of the great world to waste one thought on his duties, unless it be to contrive how he may best satisfy or shun those sollicitations with which he is besieged. And this courtly duty, my Lord, even a physician and a courtier is ill able to fulfil; for when he has arrived at this high station, the active season of life is past, he is familiar with the great, a few hours only in the day are devoted to his bureau; and that vigour of mind is wasted in the toils of daily practice, which should enable him to enter with zeal into the details of service, or to take a broad commanding view of the whole province which is committed to his care.—Thus, my Lord, it happens, that hands wanting natural strength are encum-



bered with power, and the petty concerns of an individual, his daily business and little gains, are confounded with the most important interests of the state.

How much the institution of a National School would reform those abuses, time may prove; but we have only to look abroad to other countries to be convinced how much the want of such a school is a disgrace to our own. The Academy of Surgery in France was erected after the ambitious wars of Lewis XIV. had taught his successor how much the country had suffered. The Surgical School of Prussia was erected almost as soon as Prussia became a kingdom, and is celebrated for its models of anatomy and of diseased parts. The institution of a School of Surgery in Russia was one of the chief objects of Peter I. the father of his country; his attachment to this science, the liberal terms on which he purchased the museums of Ruisch and other anatomists, the rewards and dignities he conferred on those surgeons who settled in Russia, his regular attendance at the hospitals, and his assisting frequently at surgical operations, are well known. The great Military College of Surgery in Germany, erected under the superintendence of Brambilla, is the most splendidly endowed in buildings, instruments, books and teachers, of any in Europe; and within a few years has, by the excellency of its teachers and pupils, become famous all over the world. The Mi-



litary School of Surgery in Holland was such as every maritime kingdom should have ; its teachers careful, its students unremittingly diligent, its examinations severe, its subserviency to the state of great importance. Be assured, my Lord, that in this respect our own country, in which your Lordship holds so high a rank, in whose government you hold so distinguished a share ; this country of England, so renowned for humanity and courage, is below all the other nations of Europe.

My Lord, if I have a fear for the success of the plan which I have proposed, it is, that it will be too useful, too commanding to be suffered. Even here there is danger in greatness ! On the first view of a plan in which other institutions will be absorbed, lesser offices annihilated, and great appointments comprehended with its sweeping circumference, what will not little men say ? But, my Lord, I am no politician, either by breeding or by nature. I would not work upwards through interest, cabal and petty solicitation, to your Lordship's favour ; I claim your protection for a scheme which embraces a great public good. I would have it operate with that independent influence which becomes a great institution, downwards from the higher powers, having by its constitution the means of arrangement, economy and energy within itself.

Once more, allow me to express a wish to know



“ How this may be approved of by those who are used to judge of matters connected with the state ?” But let this proposal stand or fall by its own merits, unconnected with me or my little purposes, for such will be supposed. The execution of such a plan requires uncommon talents ; “ Let it be given to the wisest.” Whoever may be appointed to fulfil it shall want no help that I can give ; I will assist him with books, manuscripts, plans or drawings, heartily and honestly, without irritation, envy, or reserve ; of which promise let this be my solemn and public pledge.

It is the fate of those who attach themselves to science to struggle with continual difficulties ; but such honourable difficulties I would not decline. Indeed, my Lord, I am not building a ladder for myself to climb to some ambitious height ; I am thinking more of others than of myself ; I am not fit nor willing to be removed from “ that soil where chance has rooted me.”—Every thing, then, rests with your Lordship. This plan is encumbered with no little designs on my part ; it is submitted to your Lordship, because, in so responsible and so high a station, you are, as an organ of the public mind, to judge betwixt that public and the individual who presumes to obtrude his advice in matters of general concern. No great man has been solicited to present this Memorial, no private friend has



revised it ; it comes before your Lordship without support, with many faults, but with some apologies also ; it is in every sense a private communication ; it is printed, my Lord, merely in token of respect.

Sensible, that if there be propriety and good sense in what I have suggested, it will sink into your Lordship's mind, I leave the rest to your deliberate goodness. For this plan I feel no other predilection than I should have felt and expressed had it been proposed by my forest enemy ; and I profess to have no partial interest in its success, both because I am far from those scenes of clamour for promotion where I might benefit by your patronage, and because it is the peculiar privilege of our profession to have higher and more honourable rewards than any Government can bestow.

With all possible duty and respect,

I remain,

MY LORD,

Your most obedient servant,

JOHN BELL.

*Edinburgh, 1800.*



