A Lecture

ON

LITHOTOMY BY A SEMILUNAR
EXTERNAL INCISION.BY SIR WILLIAM FERGUSSON, F.R.S.,
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NOTWITHSTANDING the remarkable improvement in the treatment of stone in the bladder by lithotrity, the interest in lithotomy does not diminish; on the contrary, it may be said rather to increase. It is true that the operation is less frequent than in former times, but on that account it has become the more dangerous. Whilst at one time all cases of stone treated by operation went to swell the general experience and mark the results of lithotomy—whilst cases in the young, the comparatively healthy, and in those with healthy urethra, prostate, and bladder, went to swell the general success,—a change has in modern times come over the field in which this operation is now practised, and it may be said to be in a manner limited to those cases where lithotrity is not applicable.

Without discussing the applicability of the one or other of the two operations to the young, it may be affirmed as a maxim that between puberty and the age of fifty lithotrity will be the most suitable and the selected operation. Even above the last-named age a majority of cases will be most suitably treated by this method; and if any between puberty and extreme old age be rejected or set aside for lithotomy, it must be for certain unfavourable conditions and indications which, if likely to increase the dangers of lithotrity, will most assuredly have a similar effect in lithotomy. In other terms, it may be said that all the cases of stone in the bladder in the adult, with complications, are now set aside for lithotomy; whilst all the simpler cases most promising of success are treated by lithotrity. Hence, then, it comes that the use of the knife in this disease seems more fatal than ever. A surgeon who keeps to lithotomy alone in the present day is hardly to be tolerated; he is behind the age, and his contempt or ignorance of lithotrity renders his opinion of little value. But the accomplished lithotritist knows and feels that he has in a certain number of cases to declare that some are not favourable for that mode of treatment, and these, still seeking relief from suffering, are consigned to the dangerous ordeal of the knife. It is true that some of these cases do well, and it has perhaps been fortunate that they have been rejected from lithotrity; but, as a rule, there is great danger in meddling with them. That which may be bad for lithotrity is equally so for lithotomy. The common example of the stone being too large to be crushed is one where cutting and extracting are equally, even more, dangerous. If lithotrity is thought or found impracticable, the patient's life need not be placed in hazard; but lithotomy, once performed, sets him in a condition of jeopardy which may baffle the utmost skill.

These views have gradually acquired force in my mind, as experience in both operations has increased. Simple cases are selected for lithotrity—severe are set aside for lithotomy; hence the latter proceeding is more hazardous to life, and seemingly less successful than ever. That these conditions will acquire even greater prominence in time I feel strongly convinced; and as I am equally of opinion that, with our present knowledge, lithotomy will still remain a great and important agent in the hands of man to give relief from extreme suffering, it may be said to be more incumbent than ever upon the surgeon to endeavour to render the proceeding, if possible, less difficult and less dangerous.

Without thought and experience, it might be concluded that the less the difficulty the less the danger; but the practical surgeon knows full well that such a dogma has no reality when put to the test. The simplest, most easy, and best performed

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operation of any kind—what is often called brilliancy in the surgeon's acumen—frequently ends badly; whilst the most miserable display of surgical imbecility may become a real and admirable success. Admitting, as I must, such occasional results of experience, I nevertheless claim to raise my voice against this style of fortune; and I would fain have it for surgery that the happy conclusion of a well concerted and performed scheme is a veritable scientific surgical success.

I make no doubt that such thoughts as these must have passed through the minds of many of my experienced contemporaries; and I now venture further by making or suggesting a step in that onward progress which has invariably been the inspiration of all who have attempted improvement in the field of surgery. Whether that which I shall now broach may be esteemed in this light remains to be seen; and it is with no little diffidence that, as a kind of expert, I call the attention of my brethren in the profession to the subject.

It must, indeed, appear remarkable that anyone with such experience as I can claim should refer to the Celsian operation as having any features worthy of consideration among modern lithotomists; yet such is the case, and my present wish is to call attention to that which may in reality be a part of lithotomy of incalculable advantage.

Undoubtedly the story of the Celsian operation is the oldest we possess; and I believe I may say with equal truth that, in civilised surgery, it is the most neglected of all methods of lithotomy. The haphazard incisions, particularly about the neck of the bladder, are so objectionable to the anatomist that the mind of the modern surgeon revolts at them; the more so that the ideas of Jacques, Raw, Albinus, and particularly Cheselden in this country, seemed so precise in regard to these latter.

Unfortunately for surgery, in my opinion, extremes have often been the custom; and in no department more than in lithotomy has there been greater controversy in regard to free or limited incisions. The Celsian may, perhaps, be referred to as the example of the free and easy style; whilst possibly the Marian may be deemed the excess of limitation. The lateral incisions of Jacques and Cheselden may be considered a modern style; whilst, again, the recent proposal of Allarton may be considered as a revival of the Marian process.

There are two essentials in lithotomy which, if they can be commanded, seem to me beyond all calculation in value—viz., safety to the patient, and facility to the operator. On both of these points there are, and I fear must ever be, differences of opinion; but I take it upon me to say that the method which is easiest to the surgeon, guided by anatomical and physiological considerations, must assuredly be the safest to the patient. With these views I have always maintained that a free opening externally and a limited incision internally have been, on the whole, the most desirable and successful. I claim no special success in my own practice; but I shall estimate no opinion to the contrary from anyone who cannot produce a number of operations nearly equal to my own. I can acknowledge no opinions of those who speak from one or at most some half-dozen examples, and those most likely performed in private practice.

On these principles I have always thought that the operation of Jacques, or, as it may be called in English surgery, of Cheselden, has held out the fairest prospects; and, above all, that it seemed superior beyond comparison to the Marian method, which it was intended to supersede. The straight, short incision in the raphé in front of the anus, the guidance into the bladder, and the dilating, or, as some call it, the tearing process of that operation, were all confessedly used as improvements in the former haphazard incisions described by Celsus. The limited mesial incision seems to have been by almost universal consent abandoned after Jacques's time for the lateral cut; and during the palmy days of the Dutch and French lithotomists, and also the period of our own Cheselden's work, when he repeatedly tried the high and various lateral methods of lithotomy, it has often struck me with astonishment that little or no notice was taken of what is called the Celsian operation. Whatever the changes in cutting instruments, from the broad and coarse dagger of Jacques, throughout the phases of the gorget, to the modern, comparatively elegant scalpel, no one seemed to deviate from the line of incision either in the raphé or on one side of the perineum. Perhaps I may except the operations of Vacca and Lloyd and of Dupuytren. None of these latter seemed to have gained favour; and among the many modern attempts to improve lithotomy, I can think of none which has attracted so much attention as that of Allarton. In all essential features this seems to me a revival of the Celsian operation; the means of

dilating is somewhat different, but in other respects I recognise none. For small stones I believe it an excellent proceeding; and if the surgeon is fortunate in getting into the bladder, and seizing the stone with the forceps, the moderate distension, or mere laceration, produced by extraction, are not likely to prove seriously detrimental. But I cannot bring my mind to think that this operation, as generally applicable, is an improvement on the accredited lateral of Cheselden; and with the cases of this modern mesial lithotomy which I have seen and heard of, my mind is more full of mishaps than from any other plan in my scope of observation. But I wish to refer respectfully to a plan of operation which I am aware has attracted much attention, and am prepared to change my views when I see any numerical data that can show superior results to Cheselden's lateral. From the time of Marianus to the present day the Celsian incisions have been referred to seemingly more for the sake of the curious than for the sake of instruction—more to deter than to attract. There is no evidence that Cheselden, who was perhaps one of the boldest experimenters among lithotomists, had ever tried the method; and even Dupuytren's semilunar cutaneous incision was perhaps more to test the double-bladed lithotome than to show any feature of the operation of the Celsian date.

Of this I am sure, that throughout my own personal experience I have never heard a proposal to revive any of the steps of this most celebrated operation. Cutting on the gripe has been nearly obsolete from the time of Marianus, and the only instance I can think of as modern is that related by Samuel Cooper in his "Surgical Dictionary." With the all but universal neglect, if not condemnation, of the operation, no one seems to have drawn any distinction between the external lunated incision in the skin and the formidable wound in the neck of the bladder, devoid as much of anatomical knowledge as the gripe was of mechanical skill. The anatomist can scarcely contemplate the deep incision in the Celsian operation without a shudder; yet if he considers the superficial wound, it may be difficult to point out a defect. My own impression regarding this is so strong that it constitutes the real object I have in view in offering these remarks.

In almost every instance in which I have observed difficulty in the operation of lithotomy, whether in cutting, in seizing the stone, or in extracting it, a short external incision has apparently been the cause. The cutting instrument has not been easily used in the deep part of the wound; the point of the left forefinger has not been easily passed into the bladder; the same with the forceps, and the blades have not been readily opened; nor has it been possible to extract without swaying the wound in the skin as it has been stretched over the instrument and, in the last movements, over the stone. Much of the latter part of lithotomy is done with the forefinger of the left hand, and when the external incision is short its margins will appear to encircle the finger, so that there seems scarcely room to introduce the knife for the deep incisions. It is under such circumstances that the prostate is likely to be pushed before the point of the finger, and that the operator is likely to fail in reaching the bladder. When the perineum is deep, the further progress of the finger is arrested at the cleft between it and the middle one, and additional pressure merely pushes the skin towards the deeper parts. If it so happens, however, that the external incision is free, the finger readily passes deeper, so that the knuckle gets into the wound—a thing impossible in the short incision. When the finger and instruments can be easily passed into the deep parts, the latter and nicer steps of lithotomy can be more readily accomplished, and therefore, in my opinion, with greater safety to the patient. Although fully aware that the operation has been most satisfactorily accomplished through an opening more like a stab or a round hole than an incision, I nevertheless consider the style very objectionable, and its happy results as exceptions to the general rule.

I have an impression that such palpable objection to a limited external incision had much influence in leading to a change from the Marian operation. It does not, however, appear that Jacques's incision at the side of the perineum was made with a view to length, but gradually, as the lateral operation became developed, a free opening in the skin in front, at the side, and below or behind the anus, was made an important feature; and the modern surgical anatomist has specially indicated that the knife may be very freely used between the anus and the tuberosity of the ischium to a considerable depth, as no important tissue lies in this locality. There is, however, a limit here to which the knife may be used with impunity, for the rectum, particularly if it be capacious, is in jeopardy if the incision be free and deep. Yet since Jacques's period, and par-

ticularly since the precise anatomical epoch of Cheselden, the lateral incision in the skin of the perineum has held its ground with but slight exception, and it may emphatically be called *the* mode of lithotomy of the present day.

Although I have practised the operation all my life, with a few exceptions, entirely in accordance with the views of Cheselden, I have from an early period had doubts if we were even yet on the right line for perfection. I have doubted if, after all, the side way has been the best either into or out of the bladder; and I have ever had in view the indications of Nature in this region. The contents of the bladder, of the vesiculæ seminales, although coming from the side, find their exit through the mesial line, and the *débris* from the bowels takes departure in like manner. But, above all, the ingress and egress to and from the uterus seem to me to indicate Nature's intentions as to a middle or central passage. The vagina must be allowed to be the *via sacra* between the urethra and rectum in the female; and although the analogy I mean to draw does not hold good as regards the ends of the vagina, or, in other words, the os uteri and the vulva, still I imagine that I may claim a propriety in the difference between the surgeon's operations and those of Nature, and at this distinction my lecture aims.

The grand immediate objects of lithotomy may be said to be an easy entrance to, and an easy exit from, the bladder, both being secured without unreasonable damage or risk to the patient. The old mesial or Marian operation seems to have been so far destitute of these qualities as to have been in time utterly condemned and given up. With all deference and with all respect to such of my contemporaries as have practised or advocated the revival of this operation,—for I call it nothing else in its main features,—I make bold to say that the same fate must befall this recent innovation. From personal observation, and from what I have read and heard, I believe that more mishaps have occurred proportionately in this operation than by the ordinary lateral, with which all practical surgeons are unhappily too familiar.

The theory of the lateral operation is, upon the whole, excellent. The external wound is in a thoroughly safe line as far as regards damage to important structures; and the same may be said as regards the deeper passage to the bladder. The bulb of the urethra, and the rectum on the mesial line, the common pudic artery on the outer side, are intended to be thereby avoided; and the gliding between the accelerator urinæ and erector penis, without damage to either, seems a feat to gladden the heart of the physiological surgeon. True the transversus perinei must suffer, and so must some of the levator ani; but then, again, the division of the lateral lobe of the prostate in its long axis, about midway between the reflected portion of the pelvic fascia and the vesiculæ seminales, indicates that perfect precision in which the surgical anatomist delights. That such theory is generally realised in the lateral operation I thoroughly believe; yet I have my doubts if this really be the easiest and safest way to and from the bladder. Although I have followed the practice, as a rule, ever since I began to perform lithotomy—a period extending over thirty-five years,—yet I have long been sceptical on this subject; and, as proof of this, I may refer to my temporary adoption of Dr. Willis's proposal of lithectasy in 1842;* and, again, to my proposal in that operation for an incision like this (Fig. 1), the upper line

FIG. 1.

to be in a part of the raphé, and the sloping lines on each side of the anus. Neither of these proposals seemed to take with the surgical mind in Britain; although the latter has been extensively and successfully used by Dr. Eve, of Nashville, as I have lately been told by that gentleman himself. Even with the experience I had acquired twenty years ago, I felt diffident about seeming to question the perfection of Cheselden's operation, and so I went on as best I could with the time-honoured lateral. The old feeling, however, cropped up again in me, and still leaning to the central part of the perineum, I ventured on another innovation. Instead of beginning the lateral incision on the left side of the raphé, I ventured more and more to the right, as indicated in the lines in this cut (Fig. 2), beginning a little to the right of the raphé, and then a little more; until, possibly, had I gone on, I might have tried a

* THE LANCET, vol. ii, 1842, and vol. i, 1843.

FIG. 2.

transverse wound between bulb and anus, from tuberosity to tuberosity. I have been told that these views, good or bad though they may be, are not original—that this gentleman and that gentleman made such and such incisions. But I have failed to find any record of the practice, nor am I disposed to say much about it; although I have fully satisfied myself that crossing the border from one side of the raphé to the other was in no wise detrimental, the early impression on my mind (erroneous as it proved) being to that effect. But a direct transverse line did not satisfy my imagination so much as a longer oblique one, and at last I boldly ventured on doing what I had never seen nor read of in modern surgery: I performed lateral lithotomy as regards the deep parts of the wound and prostate, beginning with the famous, but antiquated if not despised, semilunar incision of Celsus. On the 16th February, 1867, I cut a boy six years old, at King's College Hospital, in this manner. The operation was simple and easy; I may almost say, more so than is usual with myself. The recovery was perfect and without a bad symptom, although the wound healed more slowly than is common after the lateral operation at this age. On the 1st June following I had an opportunity of performing similarly on the adult—on a patient forty-eight years of age, in whom lithotrity had failed—on that account a case of extra danger, in accordance with the views set forth in the early part of this lecture. The result was highly satisfactory. The particulars of these two cases were published by the reporter for *THE LANCET* in the number of that journal for July 13th, and since then I have had a third successful case in the hospital, on a patient aged sixty-four. An example in private practice, on a patient aged fifty-nine, with most unpromising adjuncts, has also been crowned with a successful issue; and with this experience—one under puberty and three in the adult, with questionable data—I venture to bring this subject in this public manner before my professional brethren.

In all these cases the wound seemed to me to heal more slowly than in successful lateral lithotomy; but whether this was a coincidence in each, or the result of the peculiar line of incision, I cannot take it upon me to say. My impression is that it was only chance, but I should not quarrel with any who think otherwise, nor do I deem it a point of much importance, provided there be advantages otherwise.

It may be said that four successful cases are not sufficient to display any advantages to induce a trial of a new operation, and in some respects I willingly admit this; but it must be borne in mind that I write with an experience of nearly 200 lithotomies by my own hands, and it may be admitted that I should be allowed an opinion as to the peculiarities or features of different methods which I have myself tried. On this score I can say unhesitatingly that I have been greatly pleased with the proceedings I refer to.

Although I speak of the Celsian operation, I beg it to be observed that this differs as essentially from that method as did the latter operations of Jacques with those he first performed in Paris. When he began he cut at hap-hazard, and without a guide, into the bladder; but latterly, after being driven in ignominy from the capital of France owing to want of success, he used a guide—a staff as it is now called—into the bladder, and then it is supposed that his greatest triumphs came. The operations of Raw and Cheselden included this important feature, but it nowhere appears that there was any guide into the bladder in the Celsian operation, excepting the uncertain bulging of the stone as pulled and pressed downwards by the fingers of the surgeon introduced into the rectum. I have heard of

Mr. So-and-So again, as in the oblique and transverse incisions, having made the Celsian incision in the skin with a staff in the bladder, but I know of no record of any such thing, and hence I am induced to call the attention of my brethren to the subject.

It may be said that Dupuytren's operation embodied all that I seem to intimate as new in this paper—the staff and the semilunar incision; and in some respects this may be admitted, but the double incision in the prostate and the use of the lithotome caché seem to have made little, if any, impression on the minds of modern lithotomists. Neither the double-bladed lithotome of this distinguished surgeon nor the single-bladed instrument of Frère Côme has taken with English surgeons, probably in consequence of the decided preference of the operation of Cheselden.

The proposal that I now make is more in accordance with that celebrated proceeding, and the chief difference is in the external incision. I have already referred to the seeming safety of that incision, and also to some of its dangers, but something more may be said on these points. When the perineum is presented in position for the commencement of lithotomy, the raphé usually appears as a hollow (excepting in very fat subjects) bounded on each side by the ischium. The external incision, being intended to run midway between that bone and the mesial line, is carried along the highest part of the surface—for the operator dare not go near the ischium, knowing the danger to the common pudic incurred thereby, and so he begins at the furthest distance or highest eminence from the bladder. In other words, it may be stated that a wound here, to reach the neck of the bladder, must be deeper than one in the middle of the perineum. The deeper the wound, the more difficult, and I may add the more dangerous, the operation; and, most notable of all, the seizing and the extraction of the stone are more likely to be difficult through a deep wound than a shallow one, particularly when that wound or passage for the stone is limited to one side of the perineum. The objection which I have always felt to the Marian or mesial incision is that, being a straight line from over the bulb of the urethra to the front of the anus, it has been too limited to give facilities for the deeper part of the operation, and incapable of giving a fair and safe exit to a stone above average size. I admit, as a practised lithotomist, that skin and other tissues may be compressed or pushed towards the bladder in making way towards that organ, and again that when the stone is between the blades of the forceps the neck of the bladder may be drawn towards the skin, so as to make the perineum appear comparatively shallow; but I believe that both processes are highly objectionable in lithotomy, and the easier that the bladder is entered, and the easier that the stone is removed from it, the better. This leads me again to advert to the midway of Nature. When great space is required, as in egress of the head of the fetus, the expansion takes place towards the ischia and the coccyx, and such should be the aim of the surgeon in dealing with a large stone. I am disposed to think that a semilunar incision facilitates this in a more efficient and satisfactory manner than any other. Here it might be said that the mesial incision carried into the rectum would fulfil this proposition, and so I believe it would; but all experience goes to show that such a wound of the sphincter and front of the rectum as this implies, is highly objectionable. There is no evil in the semilunar incision greater than that of the lateral; on the contrary, there seems to me less. For in this central locality there is in reality no vessel, nerve, or part to demand the surgeon's caution; the bulb and rectum are certainly in no greater danger, and assuredly the common pudic and its perineal or scrotal branches are in less. The great peculiarity of this semilunar incision, however, is that it gives such an extensive external opening beyond what in this locality any single straight line would. The gap opens something like the clasp of a purse's mouth; and the points of two or three fingers can be placed in it at once, so as to depress the anus and lower part of the rectum, and permit the knife to be freely used between the bowel and bulb and on the lower part of the triangular ligament. With sweep after sweep of the knife in the semilunar direction, a close proximity with the bladder will have been made; and now the operator may take his choice as to the steps of the future stages of the operation. Years ago I thought of using a blade of this kind (Fig. 3) after making an opening into the membranous portion of the urethra. A sort of miniature double gorget, intended to be carried with its probe point along a groove on the convexity of the staff, to notch both sides of the prostate; but, being unwilling to change the cutting instrument, I resolved to try with one, and so, using the same blade which I employ in the ordinary lateral, to

make the semilunar cut. I have at this stage aimed at the membranous portion of the urethra, and thereafter cut into the lateral left lobe of the prostate with the same blade in the usual way.

FIG. 3.

Thus I have combined the time-hallowed, or rather time-neglected, semilunar incision described by Celsus for cutting on the gripe and the modern lithotomy of Cheselden of cutting the left side of the prostate on a staff. All parties since the time of Jacques, who is said to have used in his latest operations a guide, director, or staff, to render his internal incision more precise, have agreed on the value of this great addition to lithotomy, and I need scarcely add that the staff is an essential feature in the operation to which I now draw attention.

The performance differs from the ordinary method only in the external incision, but a short description may be desired. The staff being introduced, the patient is to be bound and held in the ordinary way. The usual lithotomy knife, like a scalpel in a strong handle, is to be held in the right hand with its cutting edge directly upwards; the point is then to be introduced into the skin on the right side of the perineum, midway between the anus and the tuberosity of the ischium and a little lower than the anus. It may be inserted a quarter or half an inch deep; and, by a pushing or gliding movement upwards, the right side or end of the semilunar incision is made, then the curve, and then the slope on the left, so that a line like that indicated here (Fig. 4) is com-

FIG. 4.

pleted. During the movement the knife is gradually turned round with the hand, whose radial margin, from being first turned downwards, is ultimately upwards. A second similar sweep, with the extreme ends not so deep, should next be made, when the fore and middle fingers of the left hand should be pushed into the wound between the bulb and rectum, with the intention of separating those parts; it will then be found that the anus and rectum can be depressed with peculiar facility. Now, too, with possibly a touch or two in the middle part of the wound, it will be found that the finger readily slips into the space between the erector penis and compressor urethræ; and the staff may be felt through the tissues between them and the membranous portion of the urethra. By a dexterous push, the point of the knife may be introduced into the groove, or perhaps a little further cutting may be used to divide a portion of the lower margin of the triangular ligament and part of the levator ani, or these may be divided in withdrawing the knife. The point of the blade should be pushed along, say, one-half of the membranous portion of the urethra, into the prostatic portion, so as to notch or cut freely the left lobe of this organ, or the latter may be done in withdrawal. Should the gorget (Fig. 5) be preferred, it may be used after the opening has been made in the membranous portion. The subsequent steps are the same as in the ordinary lateral operation, excepting that the forceps may be held more to the right, and withdrawn through the middle of the perineum, instead of the left side, as in the common way. Should the stone be large, the right side of the prostate can be more readily reached through this wound than through the lateral, and the good rule of pulling obliquely downwards in extract-

ing can be more efficiently accomplished than through a wound in the side.

The after-treatment is in all respects as in the usual operation, a tube being used or not, in accordance with fancy or fashion. The skin in front of the perineum immediately behind the scrotum being left entire, the wound is scarcely observable as the patient lies on his back. In one of my cases a surgeon of experience on looking at the perineum would scarcely believe that lithotomy had been performed until he made a closer examination.

With the limited experience of only four cases, although three of them were adults, and comparatively unfavourable for operative interference, it would be wrong and beyond my wish to refer to this proceeding as specially superior to lateral lithotomy; yet I think it worth while to call the attention of my professional brethren to it from the conviction that it deserves trial, and with a hope that it may in some degree simplify, in regard to performance and danger, one of the most formidable and interesting operations in surgery.

THE SANITARY HISTORY OF THE BRITISH ARMY IN INDIA, PAST AND PRESENT.

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No. I.

General observations.

INDIA is essentially a great military monarchy, always equipped for war, and often at war—an empire in which the army is always visible, and its health and contentment ought to be the first object of administrative care. The preservation of the British soldier's health in our various foreign possessions is a matter of paramount importance as regards our political condition, little as the subject has up to a recent date engaged the attention of our legislators.

No circumstance has so checked the progress of English rule as the maladies peculiar to tropical climates. And it is no exaggeration to affirm that a course of legislation which should effect a reduction in the high rate of mortality would more effectually secure our dominion than the most brilliant actions we have ever achieved. Not only does the expense involved in conveying troops to fill the vacancies in the unnaturally reduced legions fall heavily on the parent country, but another result, more lamentable than any pecuniary loss, invariably follows: a prestige of insalubrity hangs like a cloud over many of our colonial possessions. The soldier and the emigrant leave home with a melancholy foreboding of the probable speedy termination of their career. Hence the tropical colonies, unhappily, become too often the resort of the destitute, desperate, and the reckless. The worst features of English society are there perpetuated, with few of its excellences. This social disadvantage affects the condition of our army to an immense extent.

The great function of the British army in India, in time of peace, is to keep the peace there, and throughout a vast series of kingdoms having various races and a low state of civilisation. This has come to be the real and actual meaning of what is so often termed "our military position" in the East. The character of that position stands out at all times as the most important; and let us hope that for many years to come our white garrison may constitute but the police of civilisation and order in Asia, in the interests of its many peoples and of humanity generally.

With us war must, in a sanitary point of view, be regarded as involving trials to the moral and physical nature of the soldier, between what he can endure of hardship, exposure, fatigue, and privation, in congenial temperate climates, and what he may be trained to bear under like conditions of service in foreign and unnatural climates. Hitherto, in most of our European wars, the combined influences of ill-chosen localities for encampments, of unfavourable seasons, aided by wants of every kind—want of wholesome diet in sufficient quantity, want of clothing and tent-covering—have afforded numerous examples of the depression of the vital powers of the soldier;