

**Volume of copy letters, presented to Thomas Keate, Surgeon General to His Majesty's Forces, by Nodes Dickinson, their author**

**Publication/Creation**

1808

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R.A.M.C  
MUNIMENT  
ROOM

To Thomas Keate Esquire

Surgeon General to His Majesty's Forces

He He He

This Manuscript is humbly presented

By His most Obedient

Humble Servant

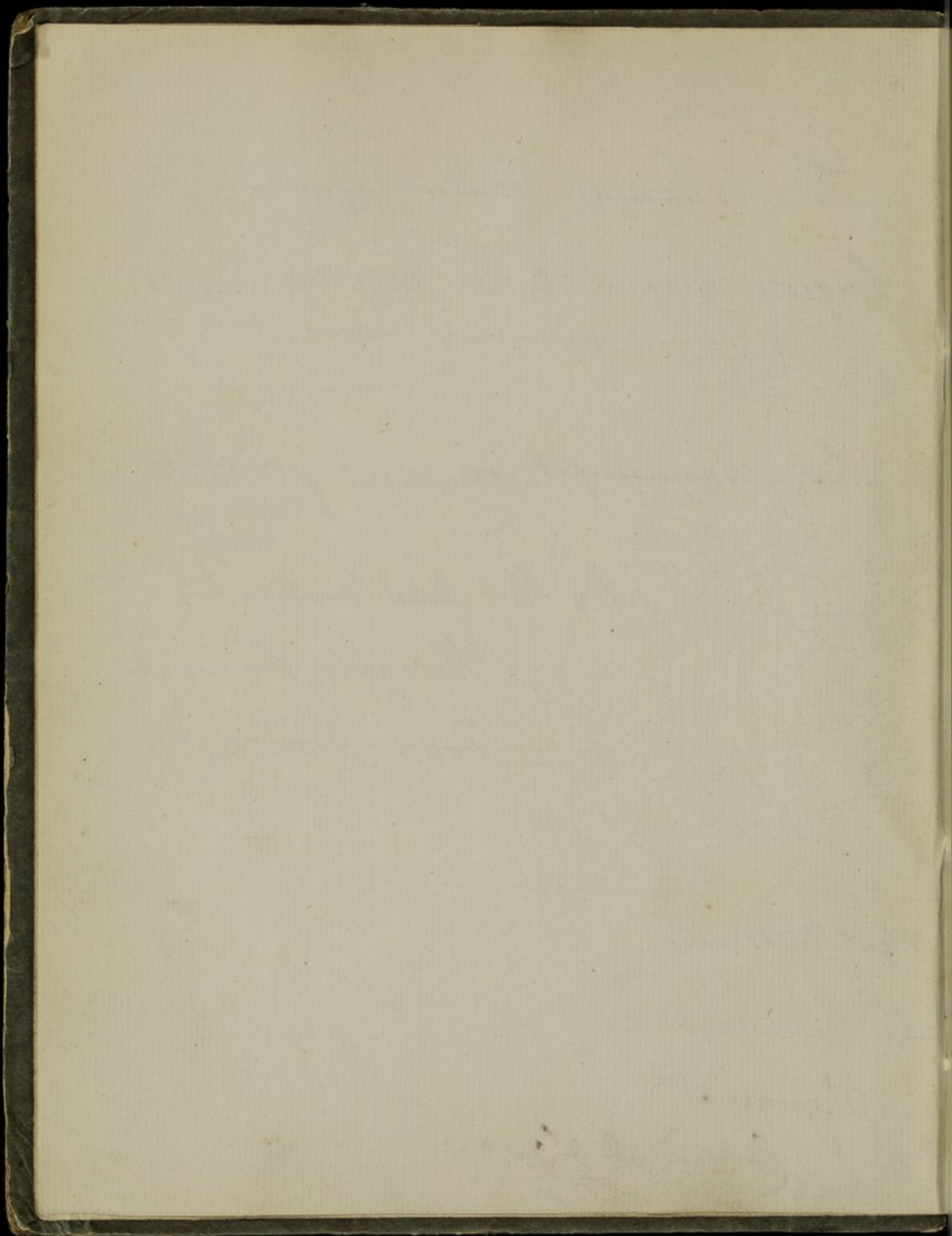
Robert Dickinson

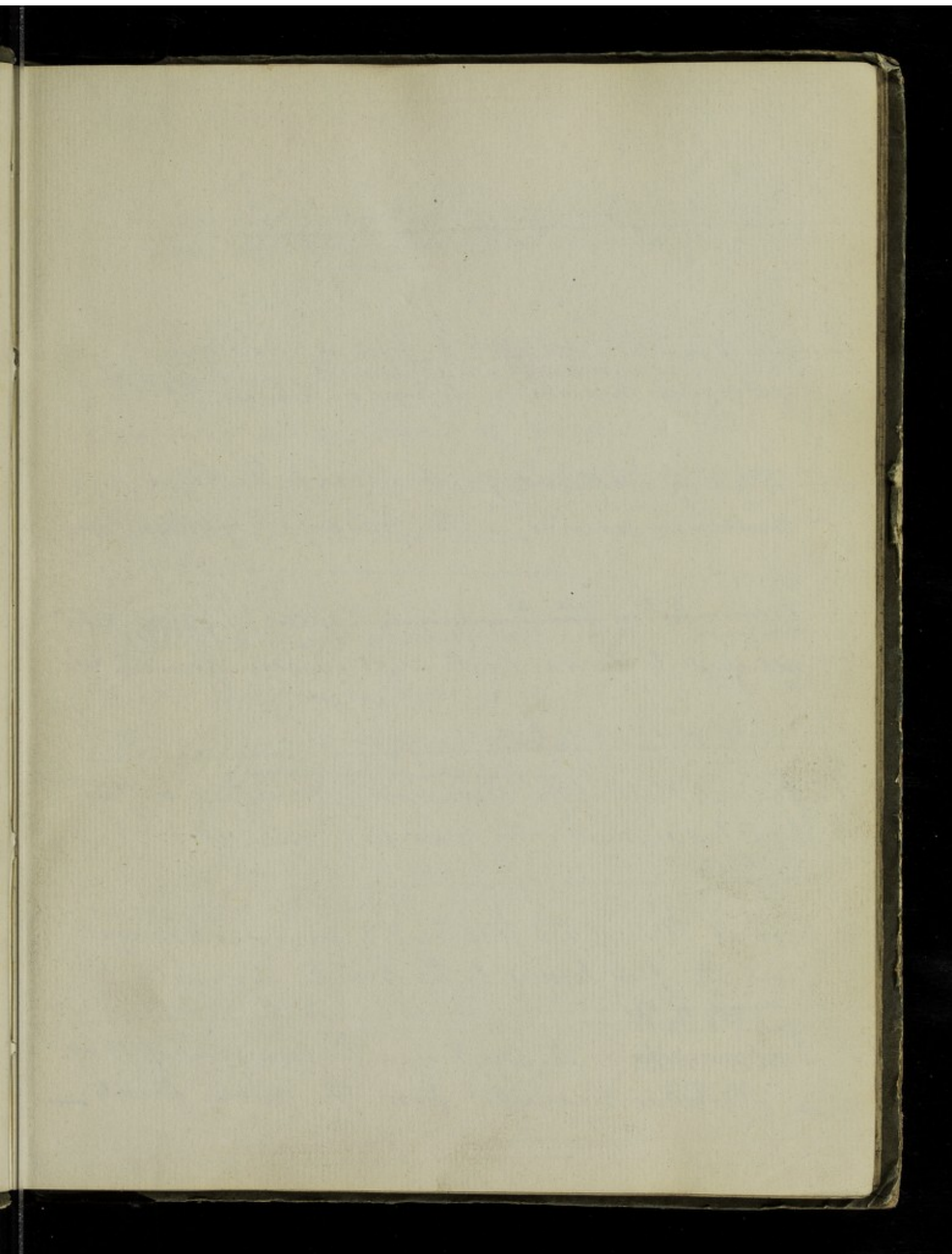
11 Cecil Street Strand -

5<sup>th</sup> September 1800

Wigmore St

Cavendish Square





Contents ~

1. Copy of a Letter, addressed to General Maitland, containing Remarks on change of Climate &c. —
2. Copy of a Letter, addressed to General Maitland, containing remarks on the prevention of "Yellow Fever".
3. Remarks on the producing Causes of "Yellow Fever" addressed to Thomas Keate Esq<sup>r</sup> Surgeon General &c.

also;

1. General State of the Thermometer & weather in the West Indies, during the years 1805 - 1806 - 1807 - & part of 1808 —
2. General State of the Weather &c. during a Voyage from the West Indies to the British Channel —
3. Some remarks on the weather in the summer of 1808, in England, transcribed from the public prints —

Letter the First

Containing Remarks on change of climate,  
considered as a Means of restoring the  
Health of Europeans, exhausted by Disease  
in the West Indies.

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written in 1797 - transcribed - and presented  
to His Excellency Major General Maitland  
the Governor of Grenada in April 1808 -

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R.A.M.C  
MUNIMENT  
ROOM



1. Note to His Excellency Major General Maitland  
Sir

Had not the probable intention of sending  
invalids from this Command to Halifax become  
the subject of professional Remark: I should  
not have presumed to present you with an  
altered copy of some Observations on this Head  
— first committed to paper in 1797 —

Should they afford a feeble testimony of the  
advantage of the proposition they are wout  
to establish: — I feel myself professionally bold  
to say that, subsequent experience would give  
additional and important proof — could the  
circumstance of enlarging on the original  
communication be brought forward with  
sufficient utility to authorize the Freedom of  
further trespass on your Excellency's Leisure

Grenada

I have the Honor to be

Sir Your Obedient

Humble Servant

Robert Dickinson

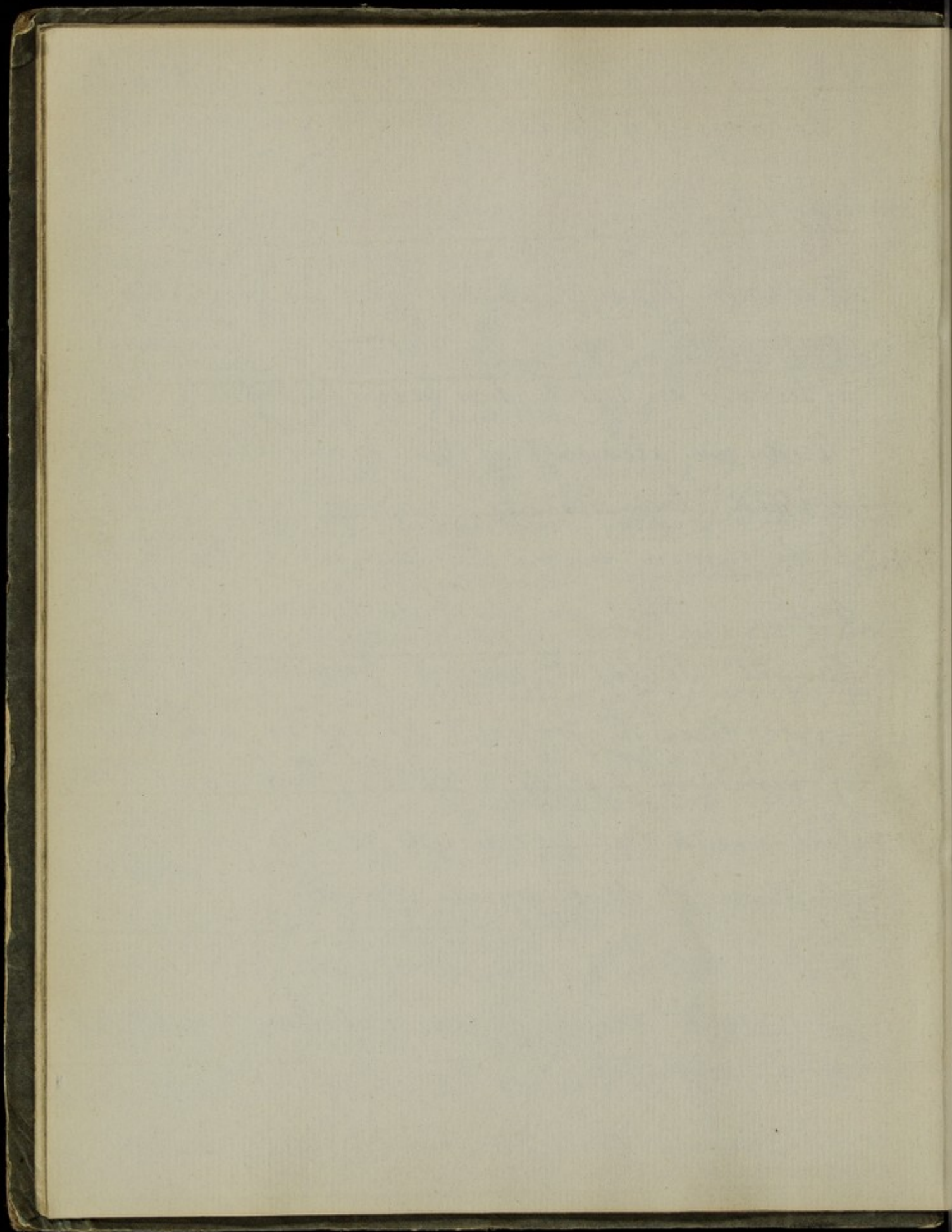
20 April 1808 —

To His Excellency Major General Maitland  
Governor of Grenada &c. &c. &c.

Sir

It is more than probable were we carefully to  
revise that Page of the History of human  
affliction, in which has been faithfully regis-  
tered an account of the Devastation com-  
mitted by Disease amongst our brave  
Countrymen under the climate of the torrid  
Zone - that an useful lesson might be  
taught which it were to be sincerely hoped  
would tend to prevent hereafter a repetition  
of similar distress; as the Remedy of this  
Evil would be discovered in the contem-  
-plation of its original source.

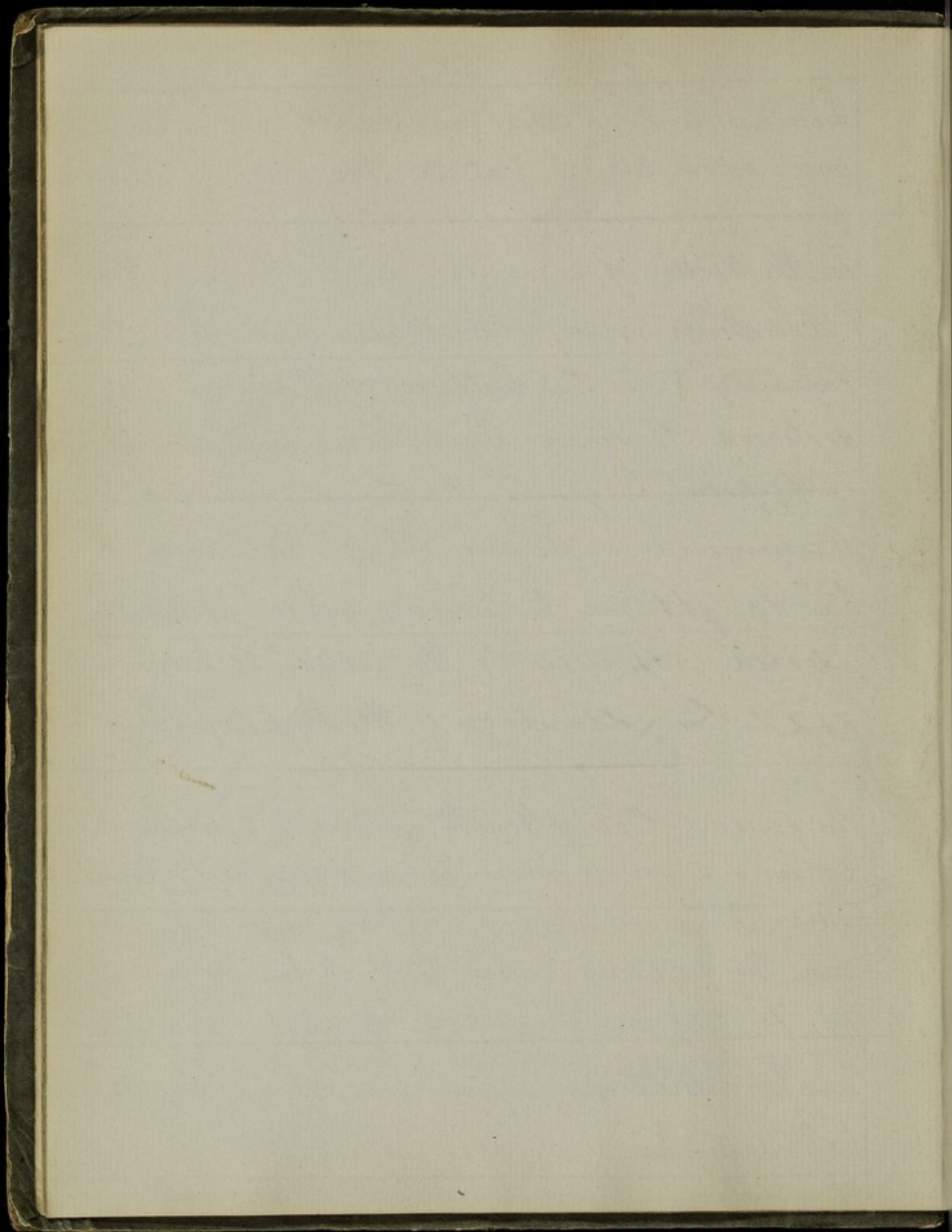
But whether by an Enquiry into past calamity  
we might the more successfully, & without  
the fear of incurring the charge of presumption,  
recommend to public Consideration the



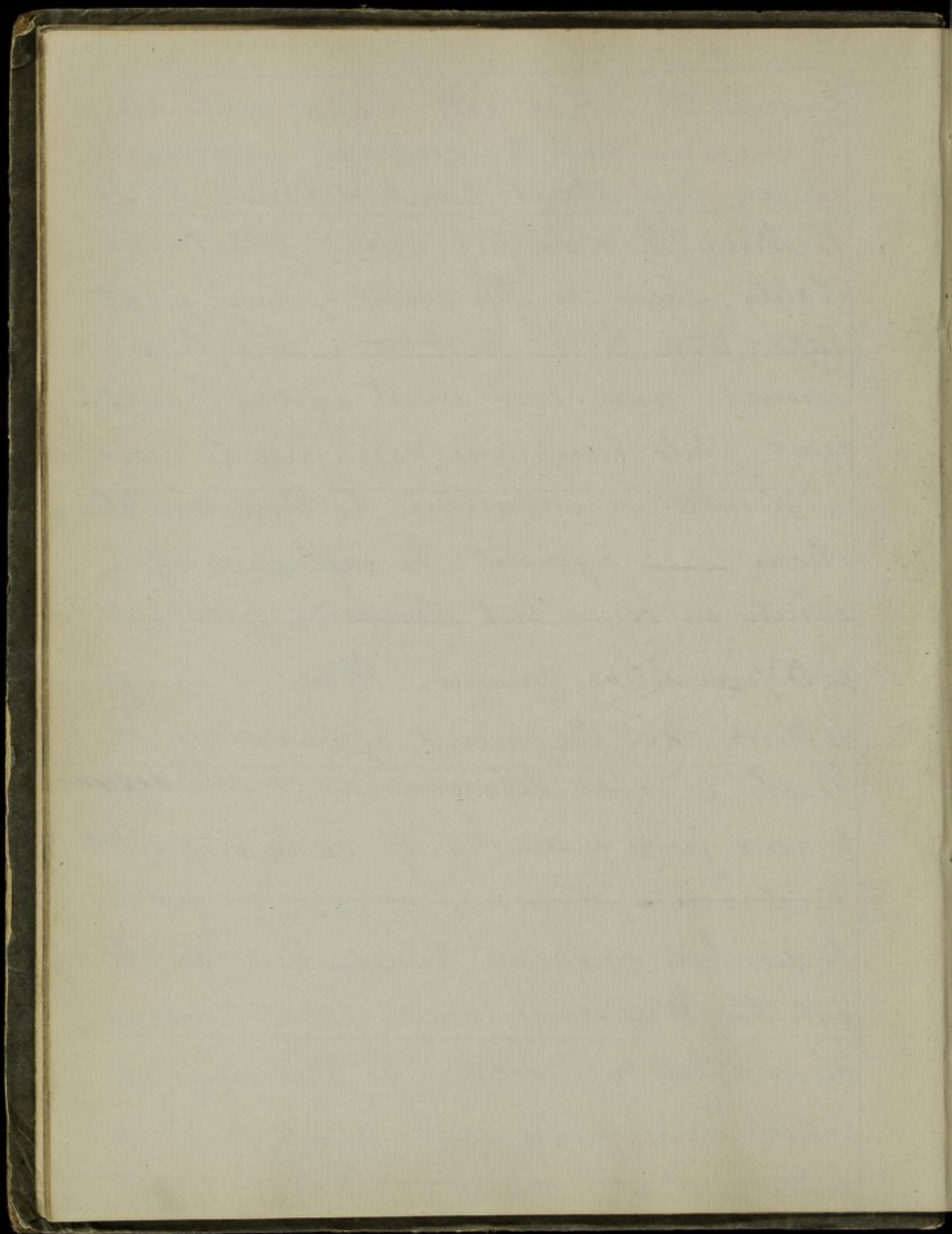
The means of future alleviation to suffering humanity, is a Question I will not dare to enter upon here: but in the hope of indulgence for unconscious Error — & confiding in the Virtue of a sincere desire to contribute (Though in an inferior degree and limited capacity) to the welfare of those, in future destined to serve their King and country in tropical Regions: I will endeavour to recommend a Means which Experience has taught me to believe would, if closely adopted, conduce to the Cause of humanity and to the advantage of His Majesty's Service.

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The general State of Health, within this Command, bearing a much more favorable aspect than when these cursory remarks, (which I have now the peculiar Honor to lay before your Excellency) were first put to paper in 1797 — for some time raised a doubt in my mind, both as to the necessity & indeed the propriety of making them an object of present



present attention: — until, having re-considered the subject with mature deliberation, I am inclined to regard it, as formerly, in an important point of View. I call to Mind the dreadful extent of that Mortality, which, in the event of any great Expedition to the West Indies, ever has ensued: and ever must again inevitably recur while Europeans continue to visit a climate so inimical to their constitutions: — against the influence of which we seem but slenderly provided with preventive means. Hence I am led to think that, the present appearance of Health is so far delusive: as it only seems to arise from a scarcity of newly imported Europeans — whenever it may, in future be deemed necessary to introduce an Army into the West Indies: every former scene of devastation by Disease & its Consequences must unavoidably suffer repetition to its fullest extent: unless certain preventive



Powers, can be applied; or the fatal consequences from Disease when it has gone its course, be arrested, by the application of a proper remedy to regain former Health —

It is to this latter Consideration I purpose to give my present attention. — The means of Prevention may, with your Excellency's permission, occupy the Pages of some future Letter —

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From his first arrival within the Tropics, the European becomes the subject of certain diseases, which very principally take their rise from the change his constitution undergoes, by a sudden and important transition — (within a few weeks probably) from a Degree of external Temperature below  $30^{\circ}$  of Fahrenheit's Thermometer to  $88^{\circ}$  in the Shade —  $125^{\circ}$  —  $130^{\circ}$ , in the Sun on the same Scale — and this is permanent, or nearly so —

Now whether, from accidental circumstances, the derangement of the System consequent to such rapid alteration from the one to the



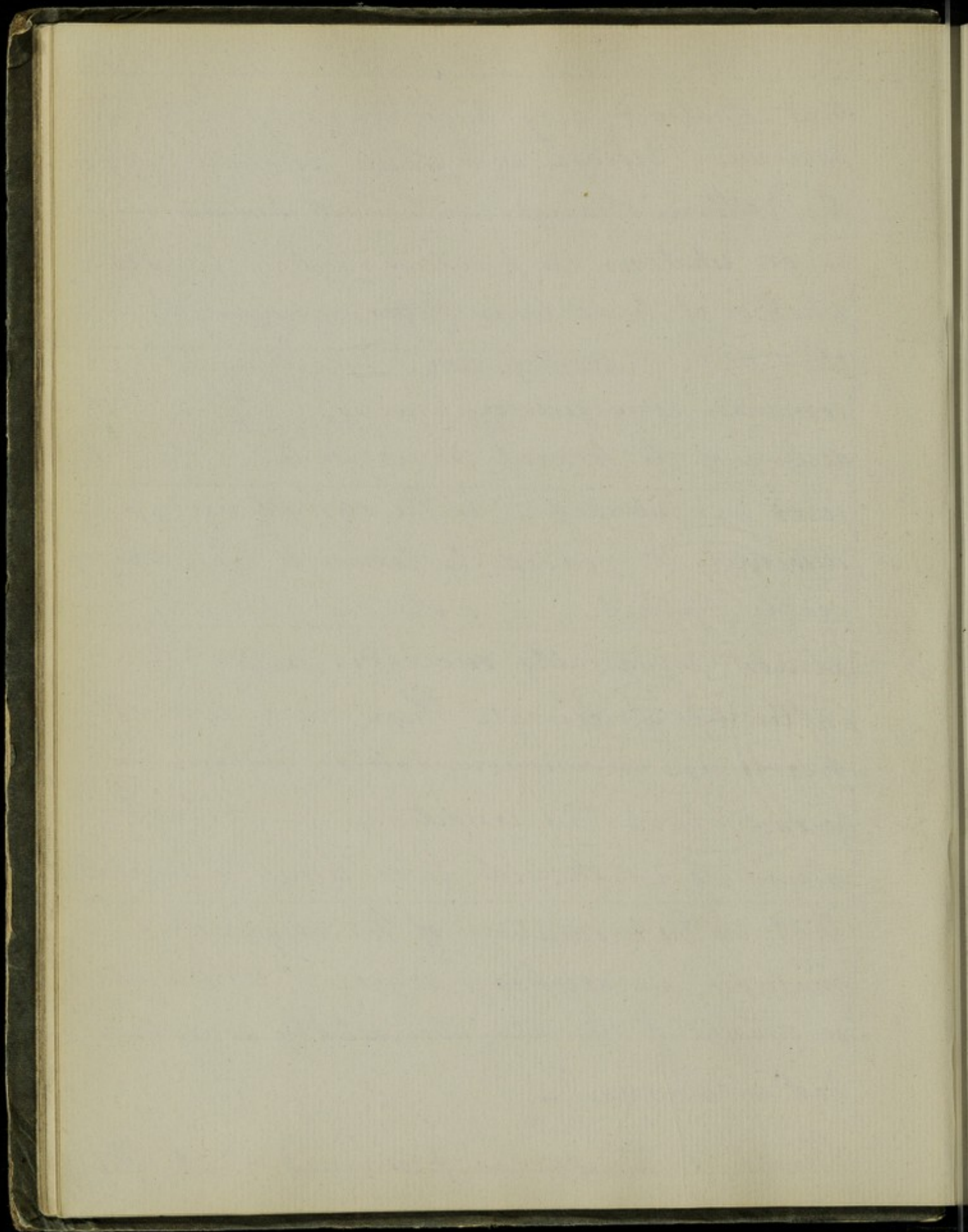
+ This suggests the remarks that, in an enlight-  
-ened & able discussion of the Subject (here  
but very imperfectly touched) the consideration  
of the Effects produced by the operation of  
Climate on the Mind would claim peculiar  
attention. I have long been led to form an  
opinion, that the influence of the Mind under  
the several Stages of Tropical Disease would, if  
rightly investigated & sagaciously managed,  
prove of great benefit to the well being of  
the sick Soldier -

other extreme of atmospherical heat (with  
other changes) proves at once severe, as in  
the event of ardent Fever &c. &c. or, on the  
contrary, gradually undermines the  
constitution by insidious approaches: with-  
out appearing to produce any formal  
attack of acute disease; or, after a long  
residence presents the enervated & worn-  
out system to the influence of morbid  
powers, against whose operation native  
vigour had hitherto made successful  
opposition: In either case the result will  
be found much the same: for should he  
(the European stranger) survive, we find  
him soon losing every former trace of  
a once healthful Frame: while a sallow  
complexion, un-energetic Mind<sup>+</sup>, and a  
state of indigestion, visceral obstruction, &  
general emaciation &c. — manifest the  
consequence of his transplantation into a  
foreign & unfriendly Soil —

1. from change of climate
2. from seasons or marshy situations
3. as sometimes occurs in Ships -

I am therefore induced to remark, in the next place that, whatever may have been originally the particular Disease with which we shall suppose the Northern stranger, in the West Indies afflicted — or, whatever its peculiar exciting Causes. Whether it have been Fever, — endemic<sup>1</sup>, epidemic<sup>2</sup>, or contagious<sup>3</sup>, Dysentery &c — a common consequence ensues. After the decline of its formal paroxysms: when the fever has subsided — or the symptoms of dysentery &c ceased to torment the miserable patient: — a state of Debility almost invariably succeeds: and the influence of climate then, very evidently proves an insurmountable obstacle to recovery from this condition. — notwithstanding we should take leave to suppose that, in the production of the original malady, an excessive degree of temperature or change of climate, abstractedly considered: had no concern —

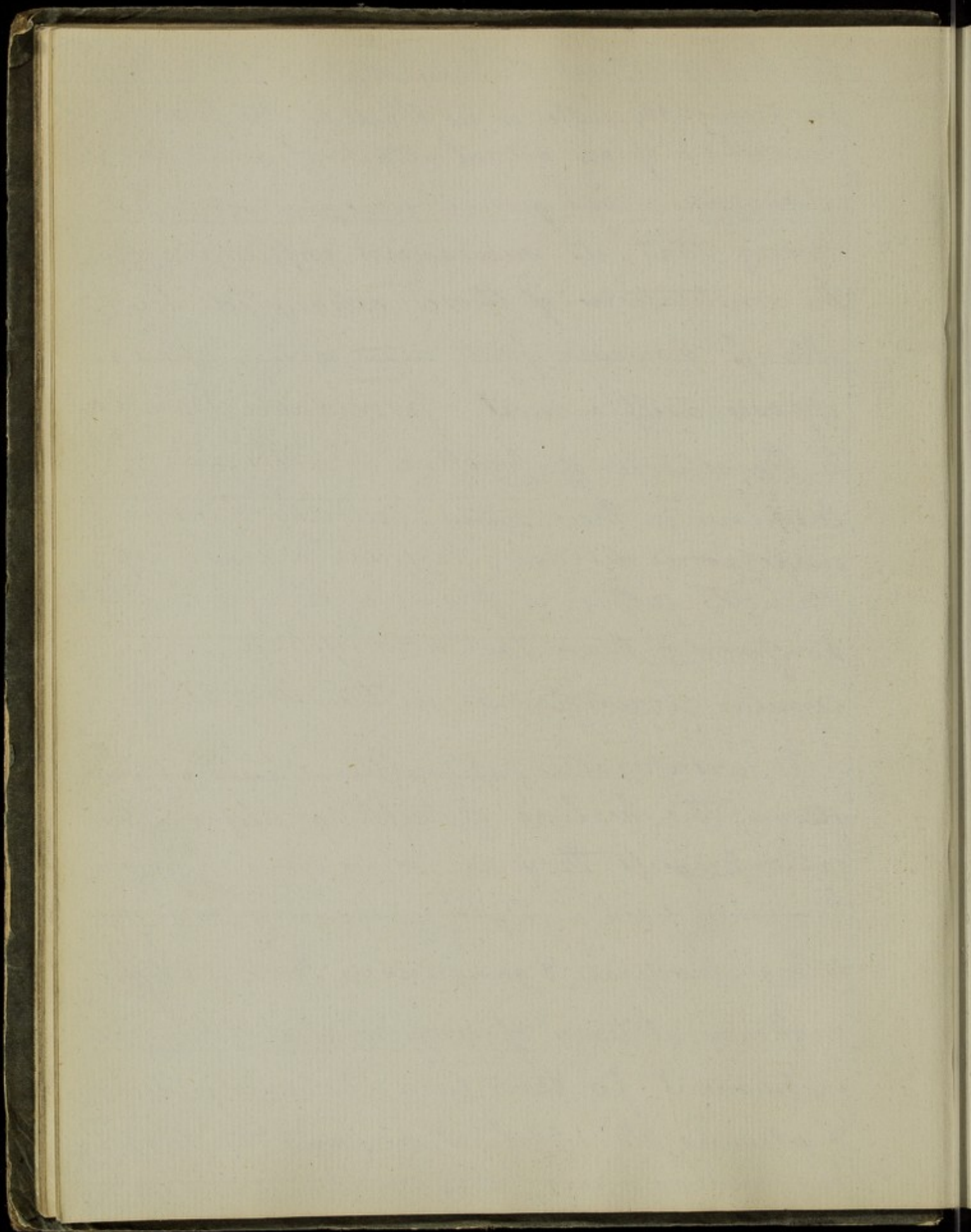
Should it therefore be presumed that, the



The heat of tropical climates, (continued & permanent, has frequently little or no share in the first production of an actual attack of acute disease; — Experience has given unequivocal testimony that, its subsequent influence, on the constitutions of those exhausted by illness, however first acquired; — often opposes itself a most formidable Barrier to the return of pristine health. —

Europeans in their native country, having undergone disease, regain a degree of strength within a few days or weeks: which, no space of time can accomplish, under similar circumstances, in this climate —

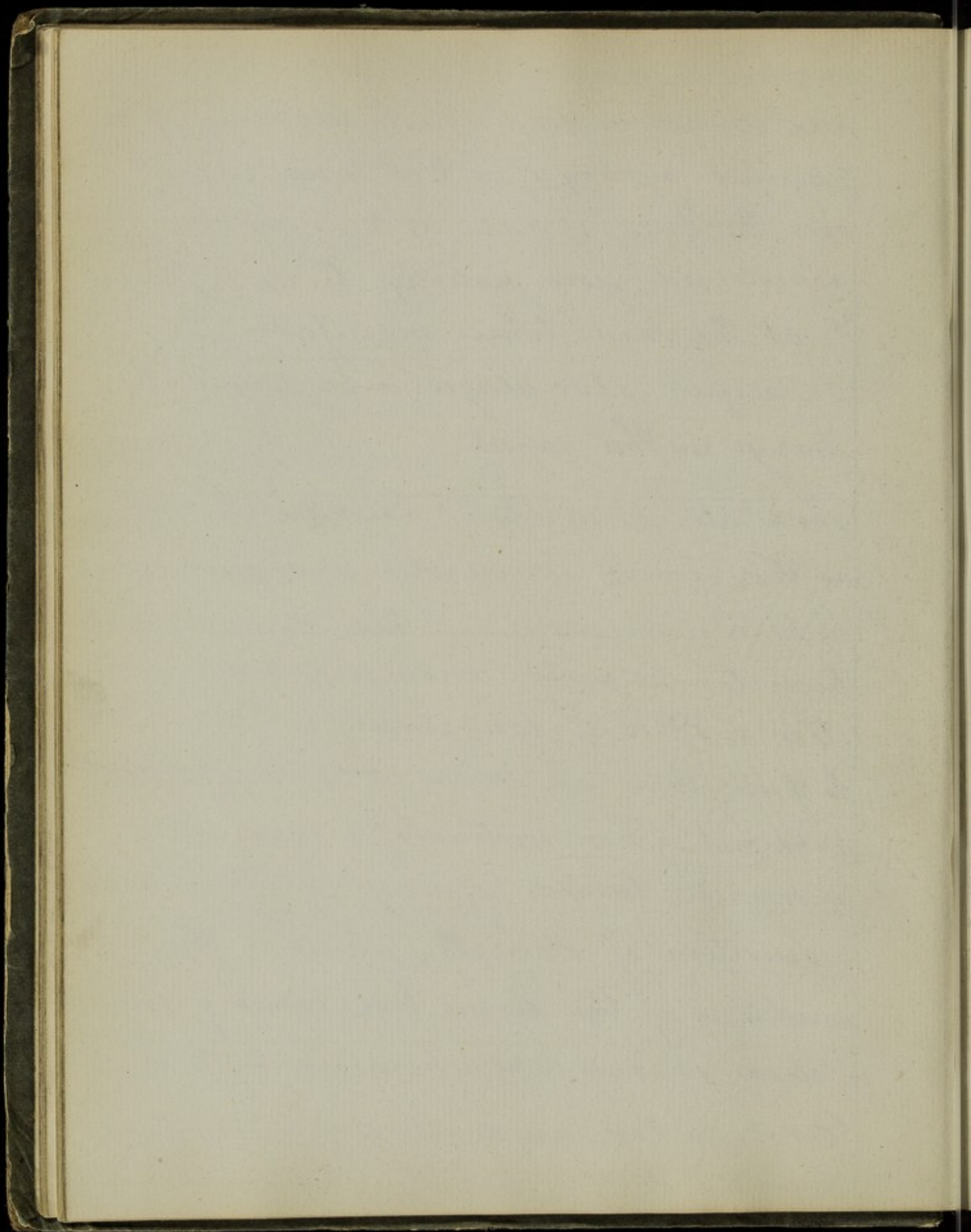
The insuperable difficulties which often attend the healing of trifling ulcers — the rapid progress they are sometimes known to make, from a slight abrasion of the cuticle, to large, inveterate, & gangrenous Sores; — The inefficacy, at times, of every medical & surgical instrument for their cure; however judicious & esteemed its application; and the surprising improvement they make whenever



recourse is, providentially had to change of air and climate: afford equal testimony of the powerful agency of a West India climate over the lives of subjs. as have not been accustomed, from nativity, to its influence; & at the same time, manifest the wonderful advantages to be derived by change in this respect.

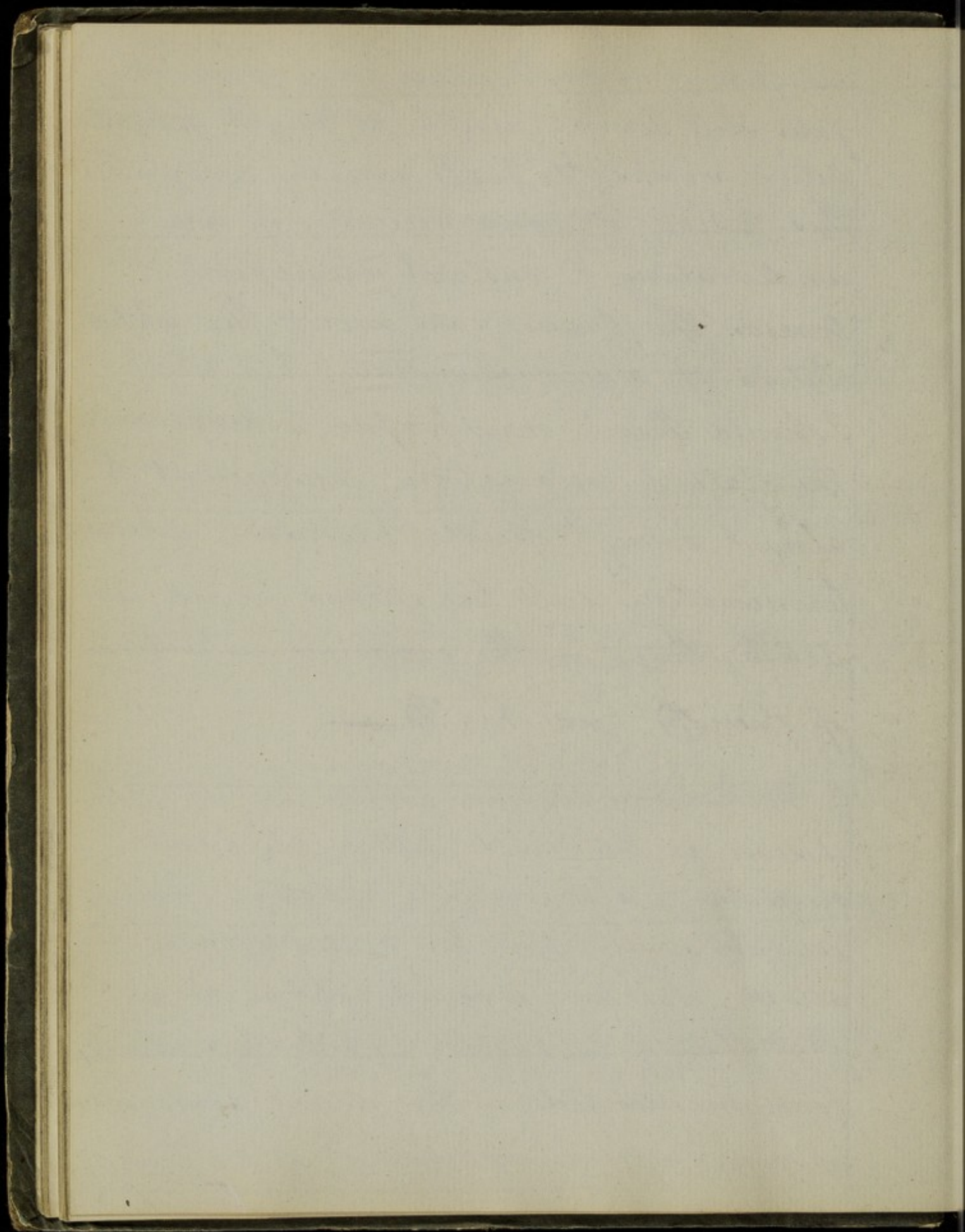
The state of debility I have mentioned, as the, almost invariable consequence of tropical Disease: — has, in my opinion, been too vaguely considered & denominated, a State of Convalescence. This I take to have been an Error, at times of singular moment. For, instead of a gradual approach towards recovery by the daily acquisition of strength, which is the condition of the living body expressly implied, in my apprehension, by that term; a case in direct opposition here presents itself; namely, a depression





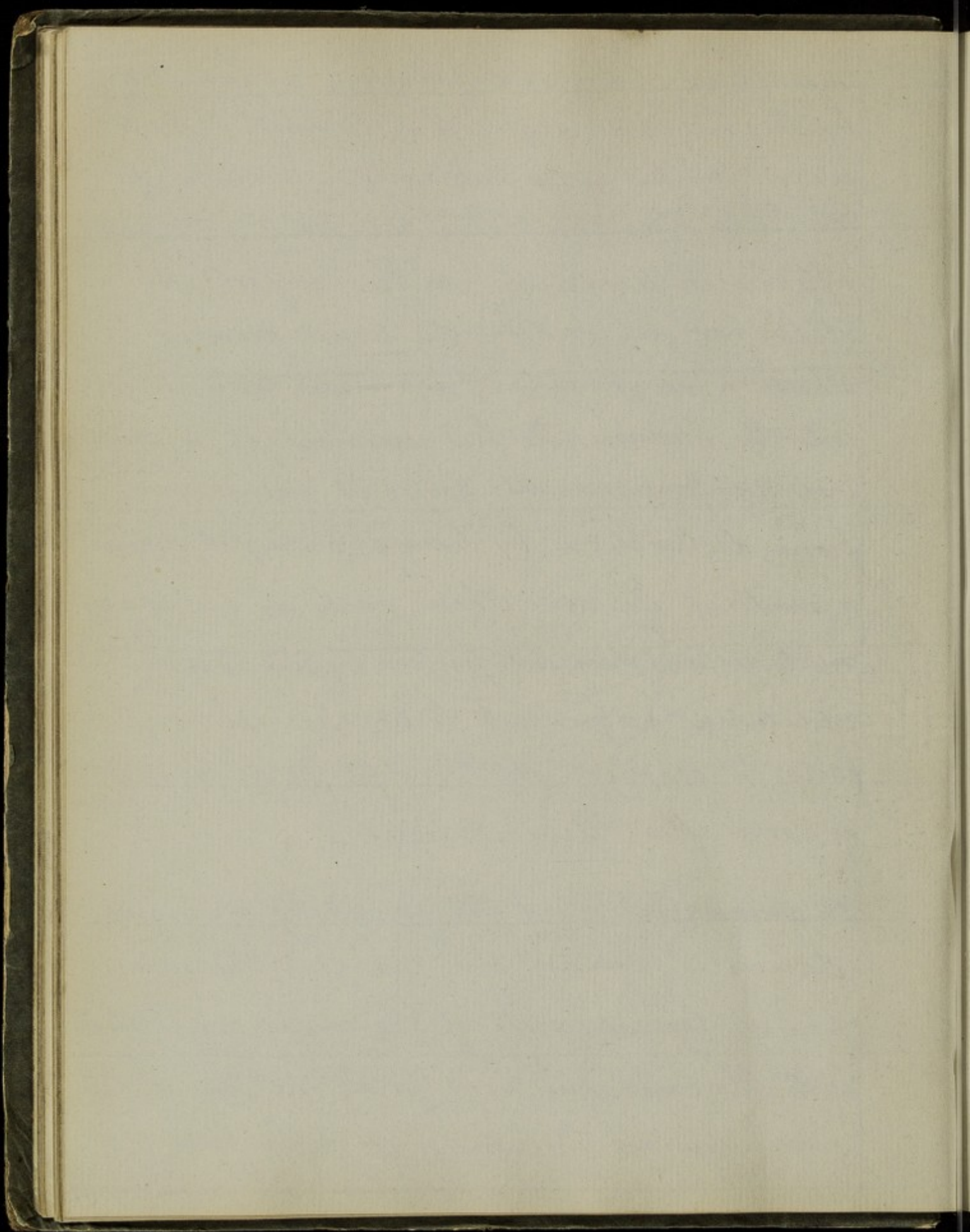
depression of strength, which every moment falls still lower - until, at length, exhausted Nature sinks; & Death usually terminates this period of convalescence; if an undeviating & constant progression towards the grave can merit the appellation of a recovering state: but which, I should think more proper to denominate the state of emaciation consequent to almost every tropical Disease: whose termination will be oftener found in death, than in the gradual restoration of strength and health -

Of the Numbers who have fallen the Victims of Disease in this Climate, within my own observation; a considerable proportion have escaped safely from its acute & formal attack; who have lingered afterwards in that state of exhaustion, which has already been mentioned as the usual consequence of severe morbid condition - at this period



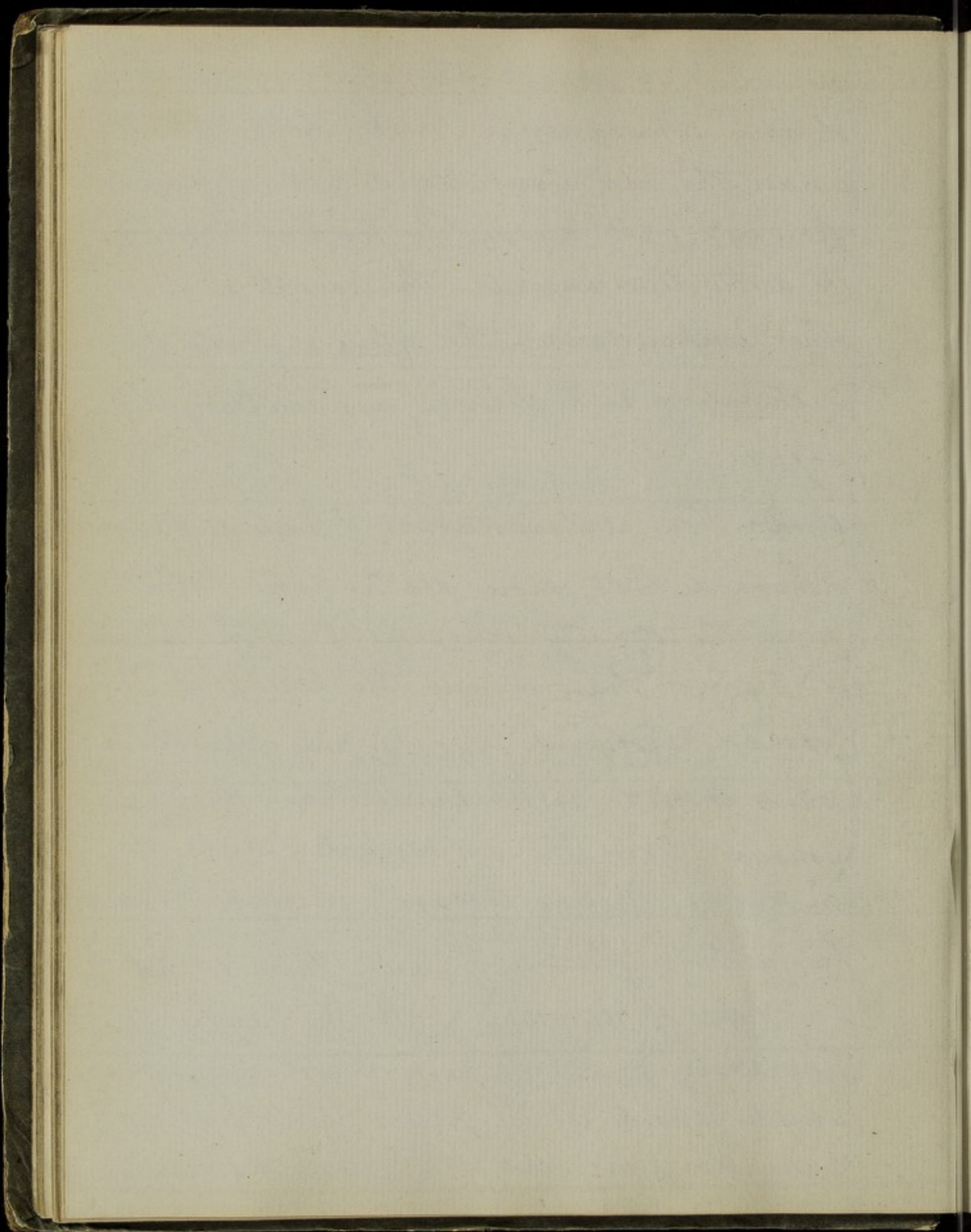
maintained — may indeed hourly augmented by the enervating action of Climate. Thus every further hour subtracts a portion of the little strength & Life remaining; until after a continuance in this enfeebled state for an indefinite time, during which a miserable proportion have sunk into the Grave; the few remains of a once crowded Convalescent Hospital are saved from destruction by being brought before a medical Board: when, such as on examination are deemed proper Objects, being invalided and sent to Europe; seldom fail to recover on their passage home, or soon after their Arrival —

On a consideration of the foregoing circumstances, I cannot but lament the determination of Convalescents of the above description, with the erroneous and fatal notion of their recovery under the powerful influence of a tropical Sun; in a Country where Marshes,



surround so many of the military positions of any consequence: and lastly, where under the best regulated discipline, intemperance will always be found to make its destructive inroad - the parent of every other imprudence - the effects of which, when co-operating with climate, are in ten-fold degree -

Under these circumstances, I have already remarked that, more deaths take place from the debility consequent to the attack of Disease, than during the period of its formal paroxysm. This, in my opinion is much indeed to be lamented; as by removal from the immediate cause of mortality - here a tropical climate; (under the further influence of which there is not any hope of recovery); both the Cause of Humanity & His Majesty's Service would be amply repaid in the preservation of many valuable Defenders of their King & Country.

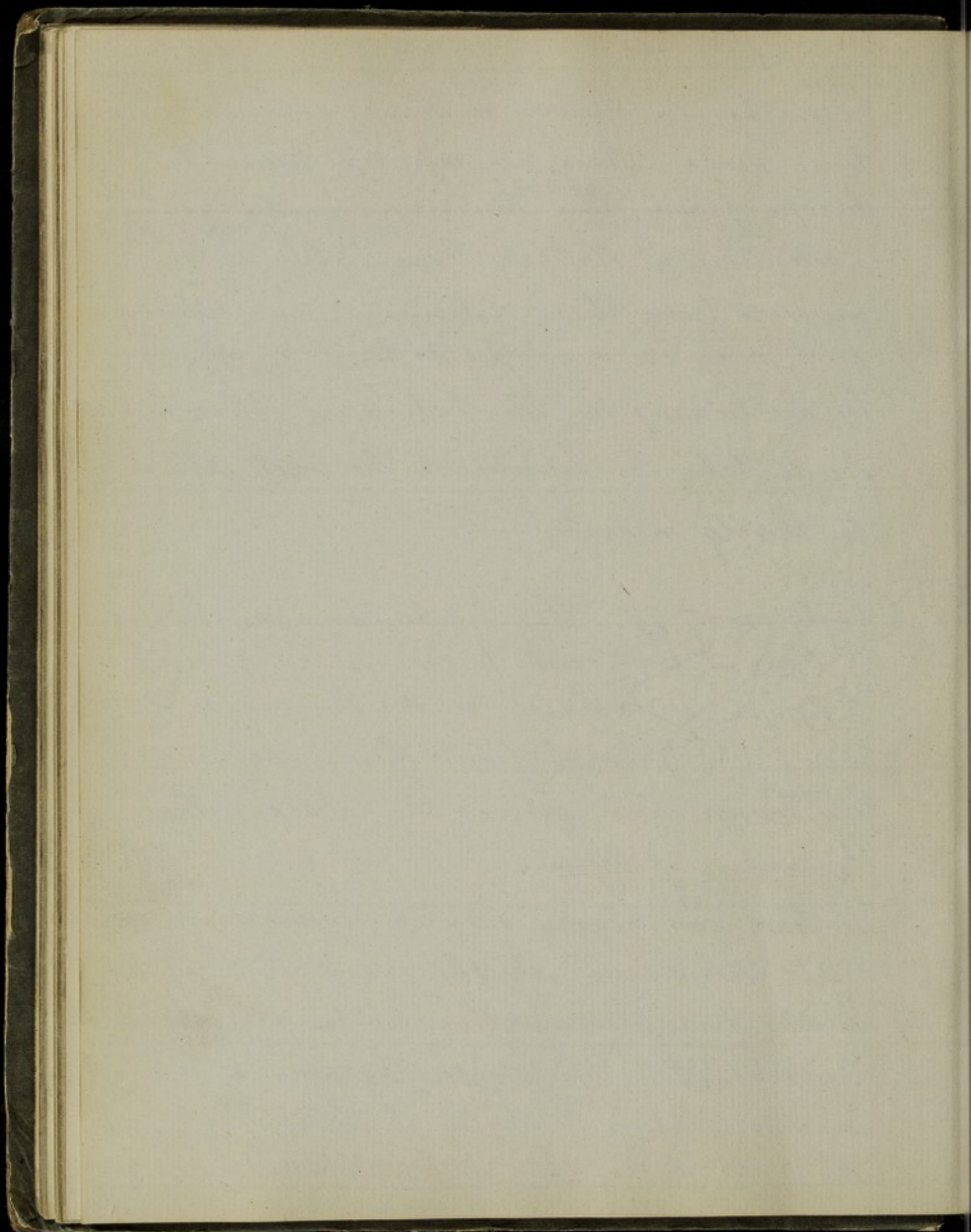


In confirmation of the Truth of the above remarks, an obvious instance occurred some time since: When an expected return to Europe from this Country, was delayed by a detention at Halifax Nova Scotia, with invalids from these Colonies - and which, as it may in some part tend to elucidate, by an Example, the preceding observations, I will take the Liberty, in the next place to briefly narrate -

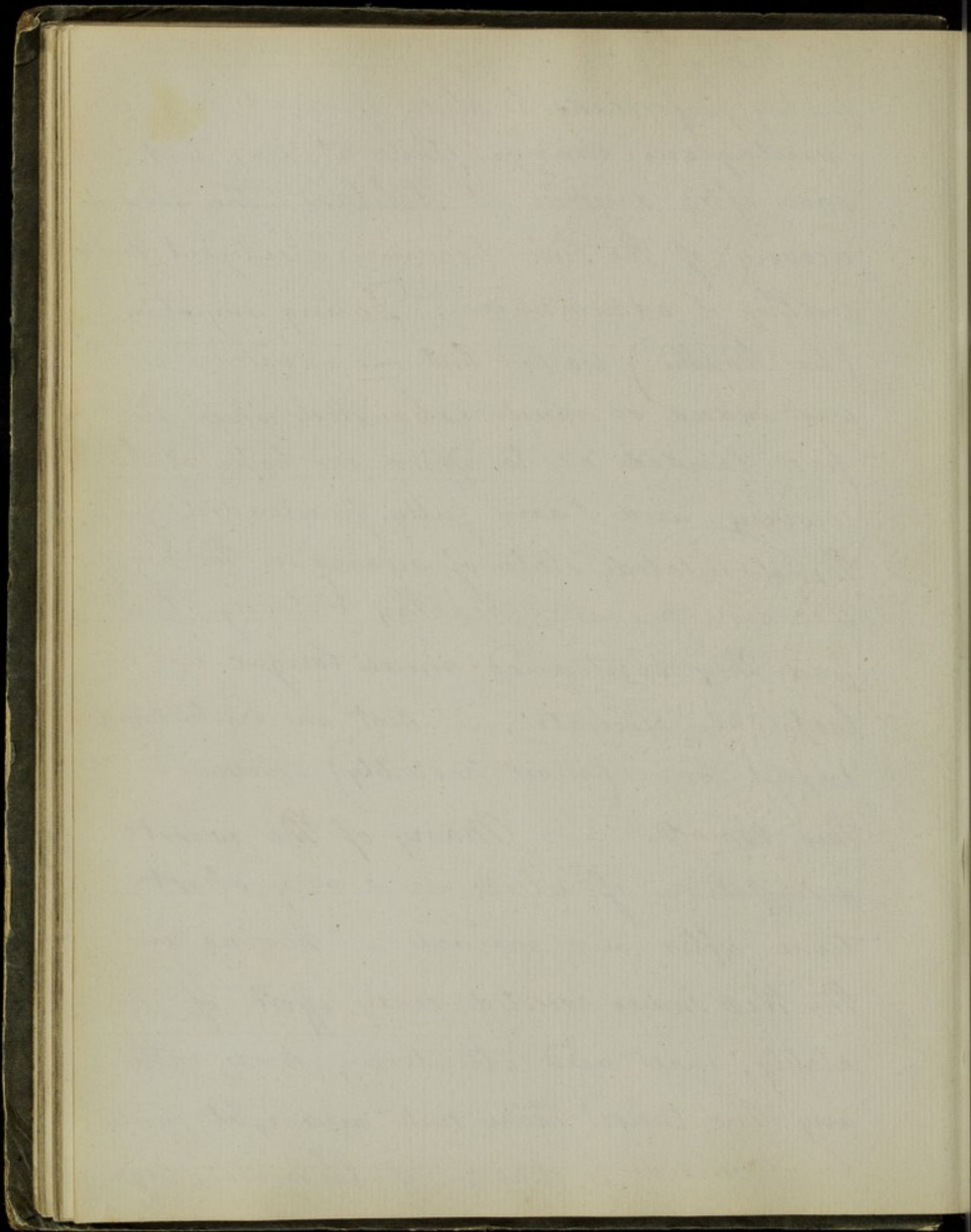
Early in 1797. The black Charaibes from St. Vincent were sent to the island of Neattan, to leeward of Jamaica, under the guard of, about 300 invalids: from whence, we continued our Voyage, and arrived at Halifax - The beginning of June.

We had now nearly 100 Sick requiring medical attendance. chiefly cases of extreme debility from previous fever or bowel complaint; together with a considerable number of old inveterate ulcers: many of which were more than of 18 Months continuance. But



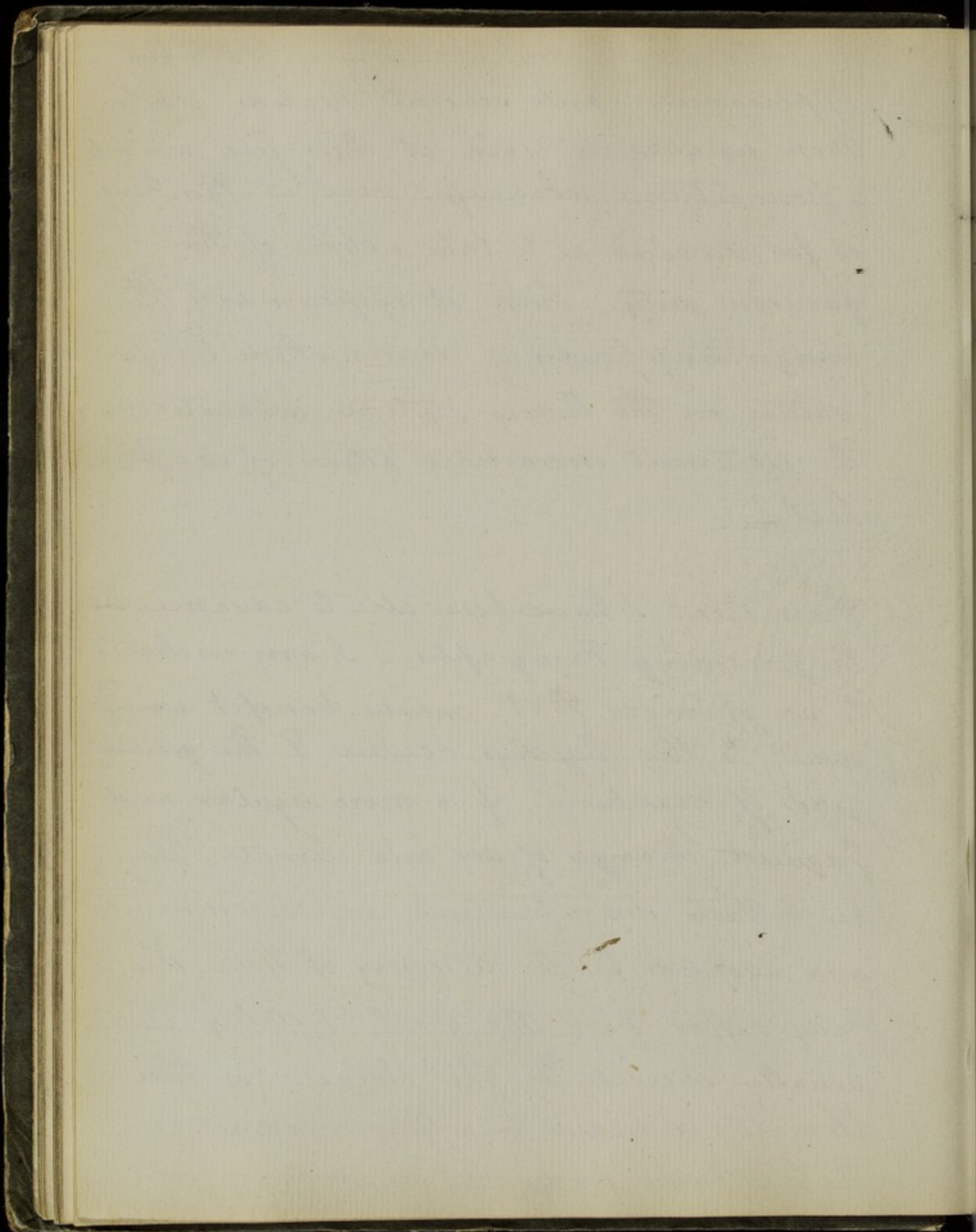


our Passage from the tropics had been too quickly performed to allow of much advantageous change while at Sea; but soon after arrival at Halifax, the general recovery of the Sick became a subject, well worthy of admiration. During my stay (two Months) we lost but one invalid: who was indeed so much exhausted when he first landed as to afford no hope of his recovery: and I am fully persuaded from the debilitated state of many on the Voyage who now became healthy & strong; that, had they continued much longer in a tropical climate; — not one in twenty would have (most probably) survived this period. — Many of the worst description of ulcers, in a very short time after our arrival — having in the West Indies resisted every effort of ability, care and attention; now, without any other Cause than such as might justly be attributed to change of Climate; began



began to assume, very generally a healthful appearance; — and several healed: while Men unable to walk at their first arrival — from extreme weakness; were, at this time so far recovered as to take a share of the garrison duty. Such, it appears were the invigorating powers of diminished temperature on the living system, exhausted by the continued inordinate action of excessive heat —

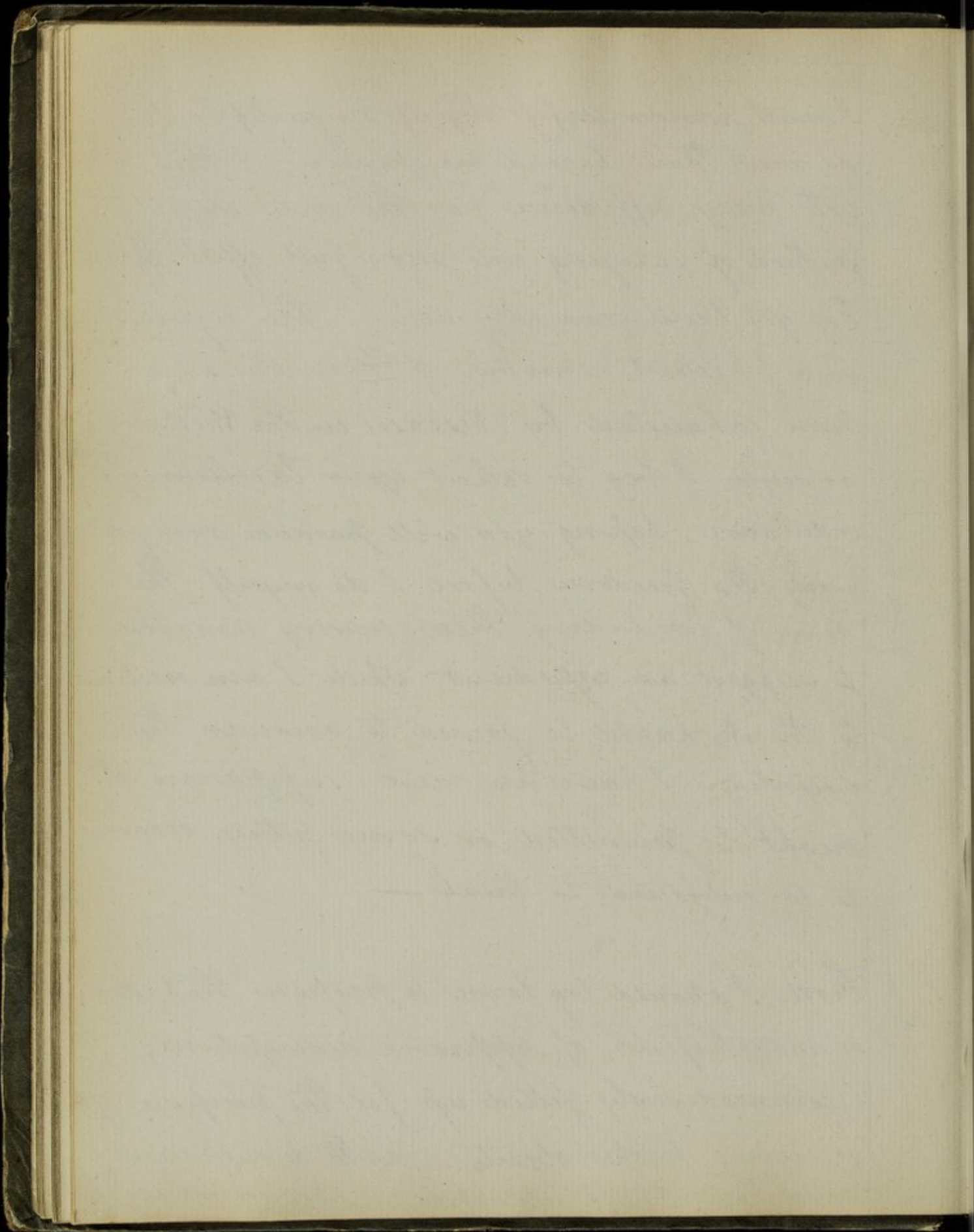
From what I have been able to advance in the preceding Paragraphs — I am inclined to an opinion that, much benefit would result to His Majesty's service & the general good of mankind: if a more regular and frequent change of air and climate, than has hitherto been practised, were recommended and adopted for the Recovery of those who may suffer from the great Debility which usually succeeds to the Diseases of this Climate: or, indeed to a long residence in the West Indies, under the most favored



condition of Health -

I must however confess myself unqualified to do more than hazard an opinion, ( & that with every diffidence ) on the most eligible method of carrying into more full effect than has yet been, generally done, - The regular and frequent removal of those who have been exhausted by Disease in the West-Indies. as such, I beg to solicit your Excellency's indulgence, hoping you will pardon me for using the freedom, before I do myself the Honor of concluding these cursory remarks: to suggest an expedient which I am inclined to think would be found to answer the intention I have in view: supposing it might be permitted, on some future occasion, to be subjected to trial -

First. I should beg leave to propose that, one or more Vessels, of approved descriptions; - commodiously fitted up for the purpose of receiving proper objects - with a sufficient medical Staff attached - be considered



to form a part of the army hospital establishment.

Secondly — That this (projected) convalescent Ship, should receive a due proportion of invalids from the different Islands: and then proceed to Sea towards higher Latitudes.

Thirdly — It is also to be recommended that, an Hospital be established at Halifax, for the reception of such cases only, as might be found irremediable by the Voyage from the Colonies, without more permanent change.

Such as had recovered on the Passage, would be returned, without ever disembarking, to their respective regiments: together with those in the Hospital at Halifax, whose Health on the departure of the Ship, might be deemed sufficiently well restored, to be discharged the Hospital —

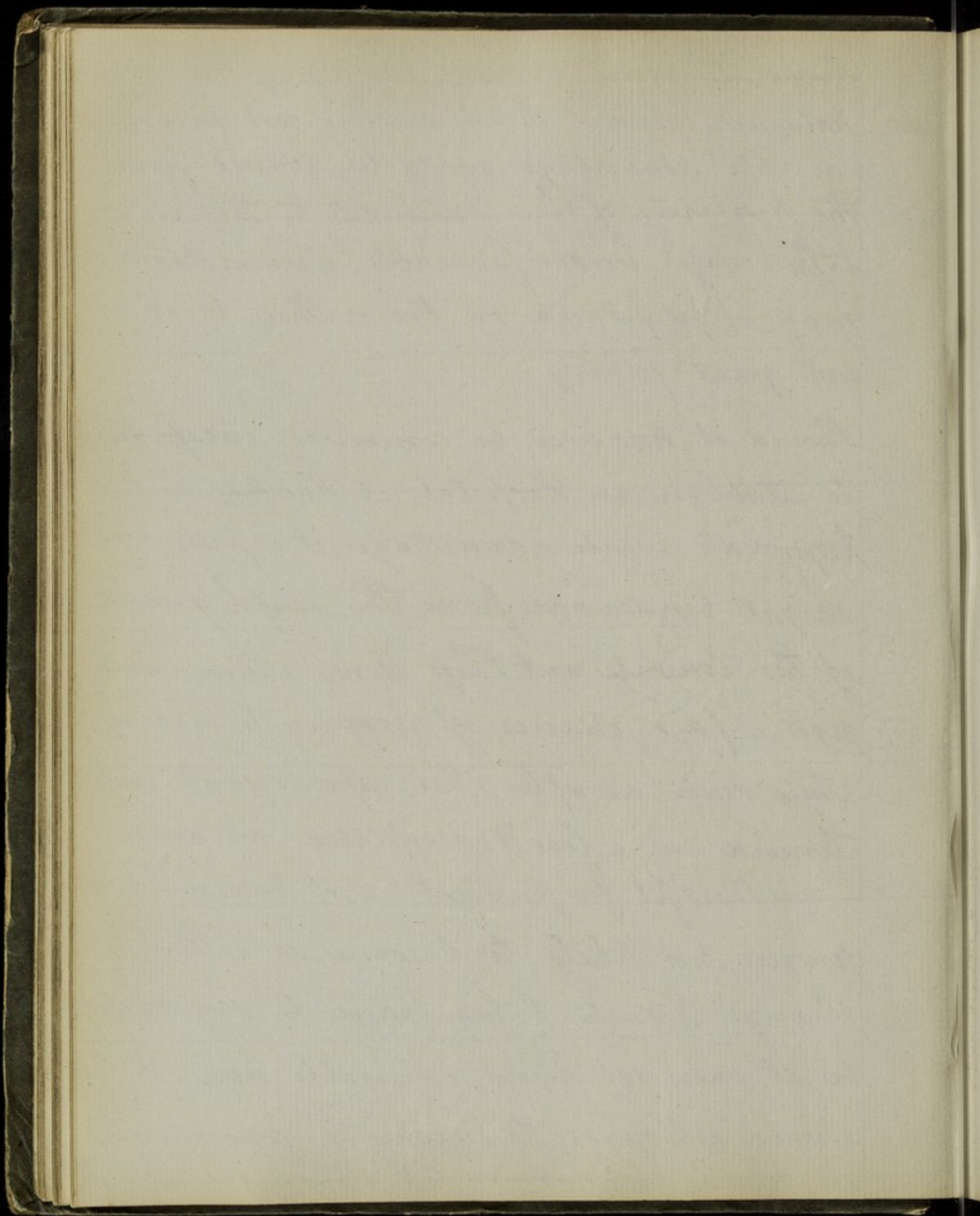
Several circumstances point our North America as being an eligible convalescent situation. Of the salubrious tendency of the climate towards the restoration of strength — dissipated under the heat of a tropical Sun; I have already observed a pretty



*[Faint, illegible handwriting on aged paper]*

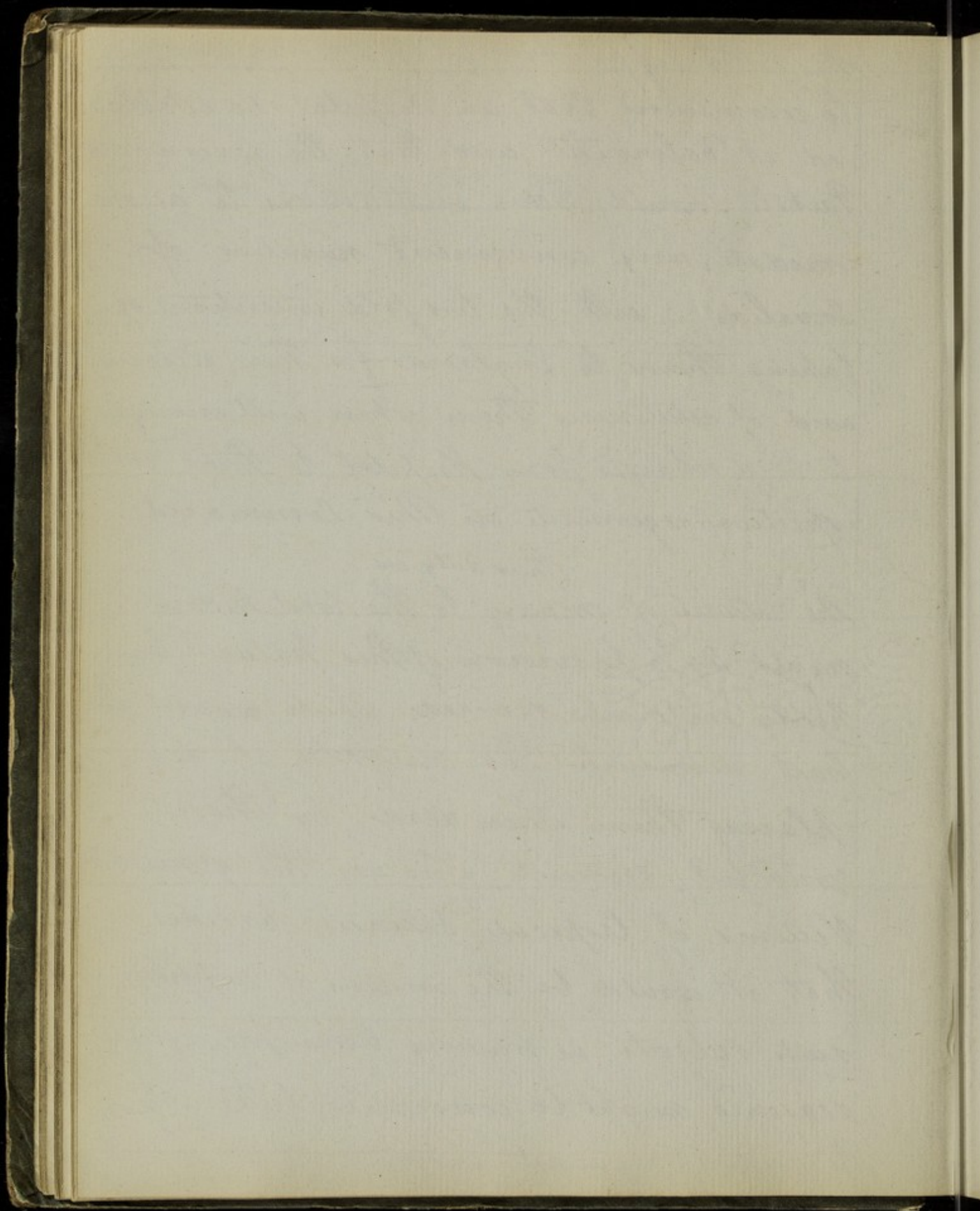
strong Testimony on your Excellency's time & patience; and I think another, not inconsiderable advantage would be derived from the proximity of the Continent to the islands, as the Voyage, under favorable circumstances, may be performed in two or three Weeks, with great facility -

Should it however be conceived inexpedient to establish an Hospital at Halifax as now proposed: much advantage, it is presumed might be derived from the employment of the Convalescent Ship alone: which would give a fair chance of recovery to many. While such as after this experiment continued in a low & debilitated condition - neither fit for present West India service, nor likely to become so without change; such, I beg leave to say, might be at once set down incurable here: & should a Voyage to Europe in consequence be deemed necessary; I would, on this



This latter supposition beg further permission  
to recommend that, an Hospital be establish-  
ed at Falmouth: and that the government  
Packets should have instructions to accom-  
modate any convenient number of  
Invalids: — with the two fold intention of  
taking them to England for their recovery;  
and of returning them, when well enough  
to be discharged from Hospital, to their re-  
spective regiments in this Command.

Their duty in  
The return of many to the West Indies  
might, by a provision of this nature, be  
pretty certainly secured: which would in  
part diminish the necessity of re-  
placing them when dead by those  
youthful Recruits, who are the genuine  
Victims of tropical Disease: besides  
that, it would be the means of supplying  
such subjects, as having been previously  
seasoned, might be considered better able  
to contend against an intemperate climate;



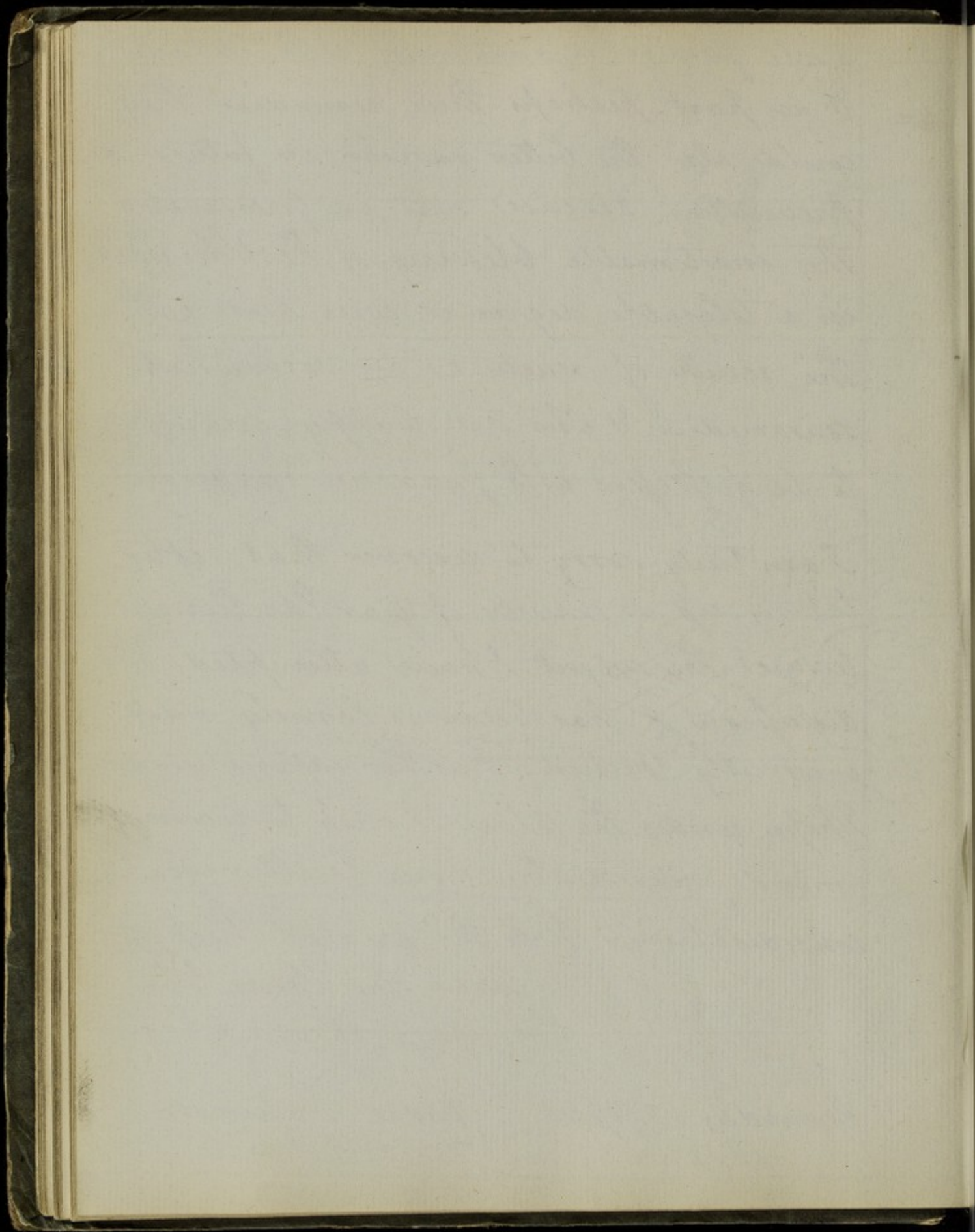
While from an acquaintance with its Evils,  
& in part perhaps their remedies, they  
could also the better succeed in future, in  
preventing Disease, and in preserving  
the inestimable blessing of Health: Which  
in a tolerable degree is even here within  
the reach of such as are somewhat  
seasoned - & who are happy enough  
to be possessed with prudence & moderation

I am truly sorry to discover that, after  
taking up so much of your Excellency's  
leisure the subject I have attempted the  
discussion of, has been so lamely and  
incorrectly touched. Further experience, may  
I hope, under the plan I wish to recom-  
mend, meet worthy your Excellency's  
consideration. With the greatest Respect

I have the Honor to be  
Sir Your Obedient Servant

Grenada. 20 April  
1800

Robert Dickinson



Letter the second

Containing Remarks on the Means  
of preventing an attack of the inflam-  
-matory Endemic incidental to  
Europeans on their arrival in  
hot climates - popularly the  
Yellow Fever†

NB.† It is presumed to be the "Endemial  
causus" of D.<sup>r</sup> Moseley - the "putrid  
bilious Fever" of Hillary: the "Typhus  
icteroides" of D.<sup>r</sup> Wright: & the "concer-  
-trated Endemic" of D.<sup>r</sup> Jackson.

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2. Note to His Excellency Major General Maitland &c &c

Sir,

The important subject of the preservation of Health and prevention of Disease among the army in this Country which occupied some part of the labors of the late Board of Health — has since been ostensibly revived in the House of Commons with an assurance, on the part of Government that it is an object which shall not fail to receive attention. If your Excellency is of opinion that an Experience of, nearly thirteen Years may be presumed to authorize a person of the medical Profession to contribute the result of his Observa-  
-tion: — I may aspire to hope that, as your Excellency once before permitted me to lay before you my Ideas upon another subject, equally connected with the preservation of human life; — You will do me the Honor to accept the Manuscript which accompanies this Note: and which I have written in the View of contributing my Mite towards establishing a successful plan for preventing Diseases on the Principle of an Enquiry into their real origin & producing Causes  
I have the Honor to be &c

Grenada 1808 —

Nodes Dickinson

Grenada 1660

To His Excellency Major General Maitland  
Governor of Grenada &c &c

Sir,

Your Excellency having condescended to receive some cursory remarks, I had the Honor to present you with, advising a means of repairing the injuries sustained by our soldiery in consequence of suffering by Disease in this climate; I trust I shall not presume, in now venturing to lay before you, such general observations as I have been induced to make in the course of nearly thirteen years Experience - on the surer ground of preventing a Disease, which cannot be denied to have occasioned a dreadful loss of human Life: and

\* On the subject of this Letter, it has been moved in the H. of Commons 30 June 1807 - "That there be laid before the House a statement of the number of Troops sent to the West Indies - from the 1<sup>st</sup> January 1797 to the 1<sup>st</sup> Jan'y 1807 - distinguishing the Officers, under whom they were sent, and the deaths that happened in each Year" - - - - - Though an accurate retrospect of the quantum of Evil incurred by sending Troops to the West Indies might be supposed to operate as a powerful stimulus to future preventive exertions: - could it be imagined any such spur were required. yet, this painful investigation into the sufferings of Humankind, even though instituted on fair, candid, & most certain ground; demands a delicate & judicious management: being otherwise calculated to do irreparable mischief, by raising emotions, & sometimes false apprehensions in the Minds of those who, from partial not to say unfounded Histories of Disease & Mortality, without being able to form an adequate judgment of the Cause; - - - - - hold a West India (perhaps unavoidable) Tour of

and which continues to be most sensibly experienced on the first arrival of every Regiment from the Parent Country - \*

In the Remarks I had the Honor to submit to Your Excellency's consideration in my last Letter: - I expressed myself of opinion that whatever Cause produced any severe tropical Disease - or, whatever Character it might assume in its commencement or progress: a common Effect would ensue; - remediable by a general Means, - namely, Change of Climate. -

It seems to be otherwise in an Endeavour to establish a successful Rule of Prevention. One Effect, - a general depression of the powers of Life, with its peculiar concomitants - is the most usual result of every tropical Disease afflicting the European; but, in their first production very different Powers operate: & it is only by an acquaintance with

Tour of duty in such dread - as of itself proves,  
not unfrequently more baneful to their Health  
and happiness than the real morbid influence  
of the climate they fear -

The evil is only to be overcome by pointing to the  
proper remedy: not by repining at its occurrence.  
The View endeavoured to be held forth in this Letter  
is solely directed to advise a plan for preventing  
future calamity. It looks to a cheerful Perspective  
of that which may be attempted to ameliorate  
the condition of our Countrymen destined for West  
India Service: - without casting a glance at  
the hitherto fatal consequences of Error or neglect;  
or, of such consequences as must ever (partially  
at least) result from the necessity of sending  
Troops at all to this Climate - even under an  
adoption of the best schemes for preventing  
Mortality -

with the producing Causes of Disease, that we can hope to establish any maxim for their prevention.

The preservation of Health depends upon our avoiding the Causes which excite Disease: or by obviating their effects - if <sup>those are</sup> unavoidable. - and by so regulating the condition of the (yet) healthy system as to correct Predisposition -

Many distempers - even of very similar external Character arise from different Causes. No general rule therefore can be laid down for their prevention: and experience has abundantly testified that a prophylactic in one instance of complaint, may be an exciting morbid Cause in another: while the particular Habit of body to be corrected & that to be established anew, under certain circumstances, may in others lay the ground for an attack of Disease - Therefore, a general Rule of Prevention will not here apply -

+ In such cases, reducing the strength of the body  
by Bleeding and other Evacuations has done  
infinite mischief. I speak from actual  
experience of the fact -

This receives elucidation by considering (for example) the preservative Means against the morbid action of marsh, and confined human Effluvia occurring as a Cause of Fever amongst those broken down in this Country<sup>+</sup> — when contrasted with the plan which should be pursued towards guarding the european constitution, on first coming to this climate — against the ravages of the inflammatory endemic or yellow Fever —

I consider the inflammatory endemic or that Disease, in more express terms which is almost exclusively incidental in the West Indies to persons arriving from higher Latitudes, — a Disease of climate strictly: to an attack of which the northern stranger is peculiarly liable in all situations — even under every possible circumstance of common prudence and precaution —

But the remittent & intermitting Fevers of



+ When the constitution has become thus assimilated, there is little comparative risk of an attack of the inflammatory endemic: — certainly not much, unless from an extraordinary exposure to the exciting causes, aided by a strongly pre-disposing habit of Body and Temperament. — Persons so inured by residence as to be thus no longer liable to the ardent or fever of climate incidental (exclusively) to new comers, enjoy very good health in the West Indies: — at least - a complete freedom from the "Yellow Fever" - and indeed from all fever, unless they become exposed to the inclemency of particular seasons; or, are placed in situations open to the influence of marsh miasmata or infection; which under any climate operate by inducing remittent & intermitting fevers, as also bowel complaints -

The continued operation of climate however, very certainly exhausts the European constitution, as I have elsewhere noticed. But in so far as Health may be considered to depend on freedom from Fever (the Disease, in one or other shape - of all others productive of the most extensive ravages: whether arising from the operation of tropical climate on new comers: or, as being derived from Marsh Effluvia &c.) - in so far, I beg leave to say the

of marshy situations; as well as the Epidemics, of particular seasons — together with the more rare occurrence of Fever of typhoid Character, are local and in great measure confined to such places and periods of season &c as favor the generation of their cause. — They appear to me essentially different from the inflammatory endemic (yellow Fever) of Strangers: & in decided preference attack those who may have become inured to the climate — who are weakly and worn out: & who have, from length of residence found in great measure a happy exemption (by gradual assimilation) from the ardent fever which so dreadfully preys on the unseasoned constitution<sup>†</sup>

Under a View of these different circumstances we must advert to different Rules of preserving Health. — In these Pages, I dare purpose no more than to consider the

The following military positions may be considered highly salubrious. Namely, Brimstone Hill - S. Kitts, Richmond Hill - Grenada - Monk's Hill Antigua, & Fort Charlotte S. Vincent.

I speak here also from my own Experience: having been stationed in them all: and I consider them situations in which seasoned Troops may live long in the enjoyment of good Health —

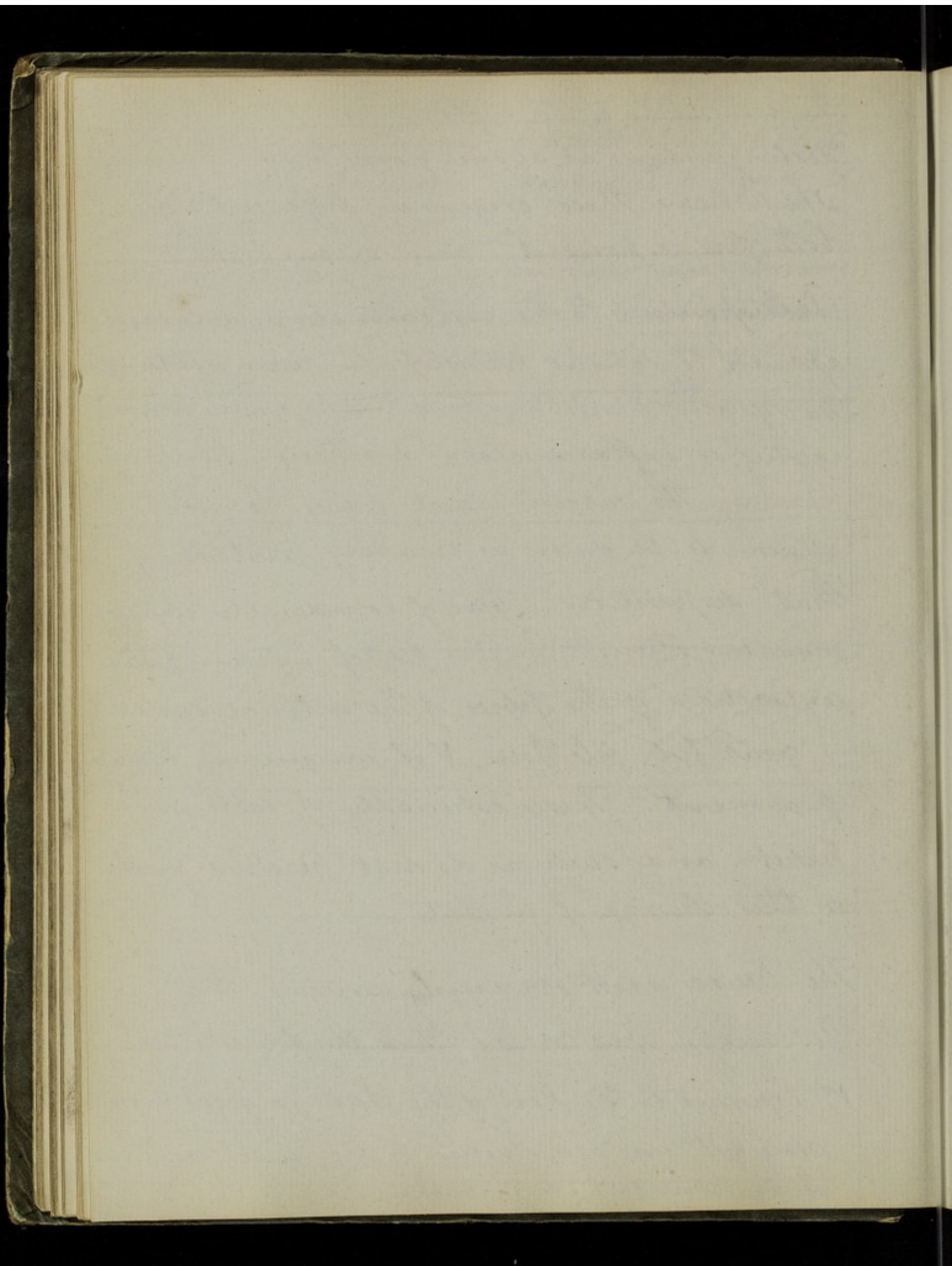
The prevention of the inflammatory Endemic distinguished as above from those Diseases which have their origin in different Causes, both predisponent and occasional.

Predisposition to the inflammatory endemic appears to consist principally, in a state of the System, which has been named a phlogistic or inflammatory Diathesis: hence we perceive the subjects most liable to its attack, to be such as usually partake of that disposition — those of considerable, apparent muscular strength — who possess a powerful contraction of the fibres of the arterial system. — youthful, plethoric & of sanguine temperament. Those especially of costive habit — and such as do not perspire freely on this change of climate —

The causes, most obviously exciting the Disease in new comers thus predisposed are;

- 1<sup>st</sup> Exposure to the Heat of the Sun in great degree, while yet un-accustomed to the direct influence of so powerful a Stimulus —

2<sup>dy</sup>



2<sup>nd</sup> Violent muscular, & perhaps mental exertion.

3<sup>rd</sup> Intemperance in eating and drinking - Indolence and inactivity increase predisposition and should there be also auxiliary causes not taken into this account - or others unknown to us in the production of this Disease: we can only consider them alike calculated to operate the same effect: we may, at least hope that the means of preventing the morbid action of such as are manifest & sufficiently obvious, will be adapted to oppose the operation of any other concurrent noxious power not taken into particular consideration or not at all times clearly distinguishable -

It may be proper also to observe here - that on the general scheme of preventing Disease - there are many salutary means alike applicable to each particular & even opposite class. I have known Men take the inflammatory endemie under intoxication from the operation of a powerful

+ With respect to dress; the lightest and coolest should be preferred — unless we are obliged, at once, to expose ourselves to the inclemency of season — the night air, or violent Exercises — in which case, flannel should be recommended: and equally avoided, if the New comer can command his situation, & degree of Exertion. For it is calculated to induce irritability and subsequent Languor and debility. — perhaps a susceptibility to the operation of morbid powers —

stimulus during the period of its action as such; another Man takes low marsh Fever the day after a similar debauch - from the debility which always succeeds so dreadful an excess of stimulation. In each case moderation would have been the Golden Rule of preserving Health - and so of many other Examples -

Having premised some of the chief circumstances, which appear to regulate the causes, both pre-disponent and occasional of the Disease we are wout to prevent; — I shall, in the next place beg leave to suggest the means best calculated in my opinion to so salutary a purpose: the principal of which are — bloodletting, purging, spare diet, abstinence from wine & spirituous Liquors: with some others of less moment. <sup>+</sup>

On approaching tropical Latitudes, we should seldom delay taking a certain quantity of Blood — The measure of which,



+ This, and some other Notes which follow, are introduced, as they afford a strong collateral evidence of the propriety of the preventive Means recommended in the Letter -

note.

"The Officers of the army and navy who have leisure and can be prevailed upon, on their arrival in the West Indies to undergo one or two courses of Mercury, take a few laxative Medicines, after confining themselves to a moderate use of Wine, & living chiefly on Vegetables for the first two Months after their arrival, may rely, almost to a certainty, on escaping the Fever" - Clarke Dominique -

"A Detachment of Dutch arrived at Port au Prince - all subjects of West India Fevers. The entire were bled freely: and on the subsequent morning took each a dose of Physic - only two died in four Months."

together with the propriety of repeating the operation must be determined by the several circumstances of Age; sex, Temperament &c of individuals - as also by the general condition of Health. These it is presumed will be taken into careful account by the attending medical officer.†

When venesection has been employed, a purgative should be exhibited: and a preference is here given to the neutral purging Salts. The several circumstances alluded to above, as necessary to ascertain the quantity of Blood which may be prudently and efficaciously withdrawn from the system: will equally determine the more or less frequent repetition of the purgative. — Should it be deemed advisable not to repeat the dose of purging salts, or of Calomel combined with

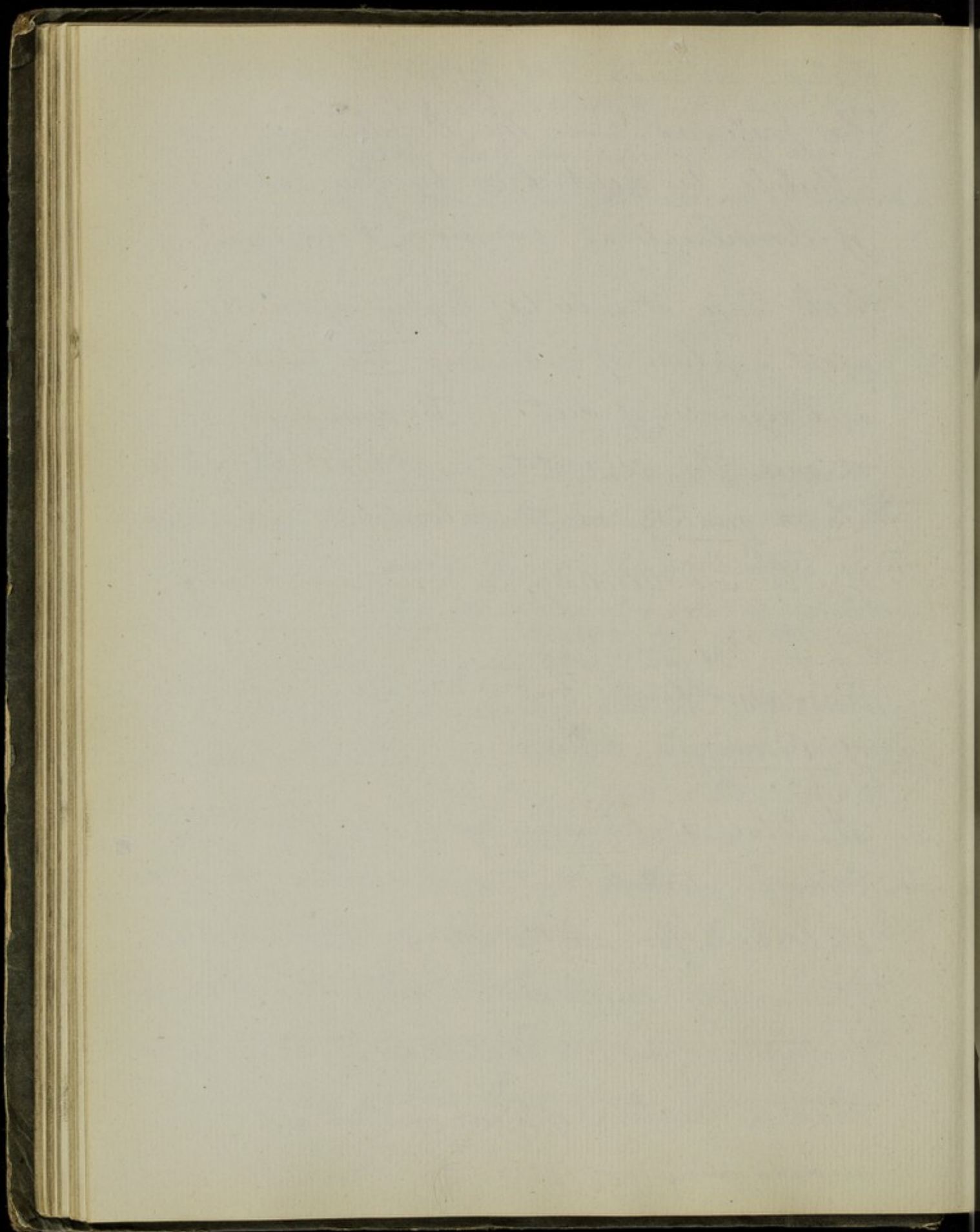
+ The Imperial I mean is a purgative Lemonade, made by pouring in the proportion of a pint & half of boiling water upon half an ounce of the cream of Tartar. Let it be sweetened with Sugar & drunk when cool —

\* The mention of Condiment leads me to suggest the advantage that will, most probably accrue to the youthful subject of Yellow Fever — by abstaining from its use, while a tolerable share of appetite continues. It is early enough, in my opinion, when the enervating effects of climate have undermined the Constitution & disturbed the digestive faculties to have recourse to their aid. It is, doubtless, an effect of the climate to impair the office of the digestive organs: — and, in such case, the benevolent Author of the world has bestowed a means of reparation. But men more frequently seek the opportunity of using Peppers, Spices, Sauces & Drams, because they like them, — than as they judge themselves to require such assistance —

Salap- in case that form of purgative  
be preferred: — The Bowels should, never-  
theless be kept free by the exhibition  
of Imperial as common Beverage. †

With these, it will be highly expedient to  
adopt a plan of reducing the usual scheme  
and regimen of diet. To diminish, if not  
at once the quantity — at least the stimu-  
-larat quality of the aliment made use  
of: by substituting in a certain degree,  
vegetable for animal Food: using at  
the same time but a small proportion  
of Condiment. \*

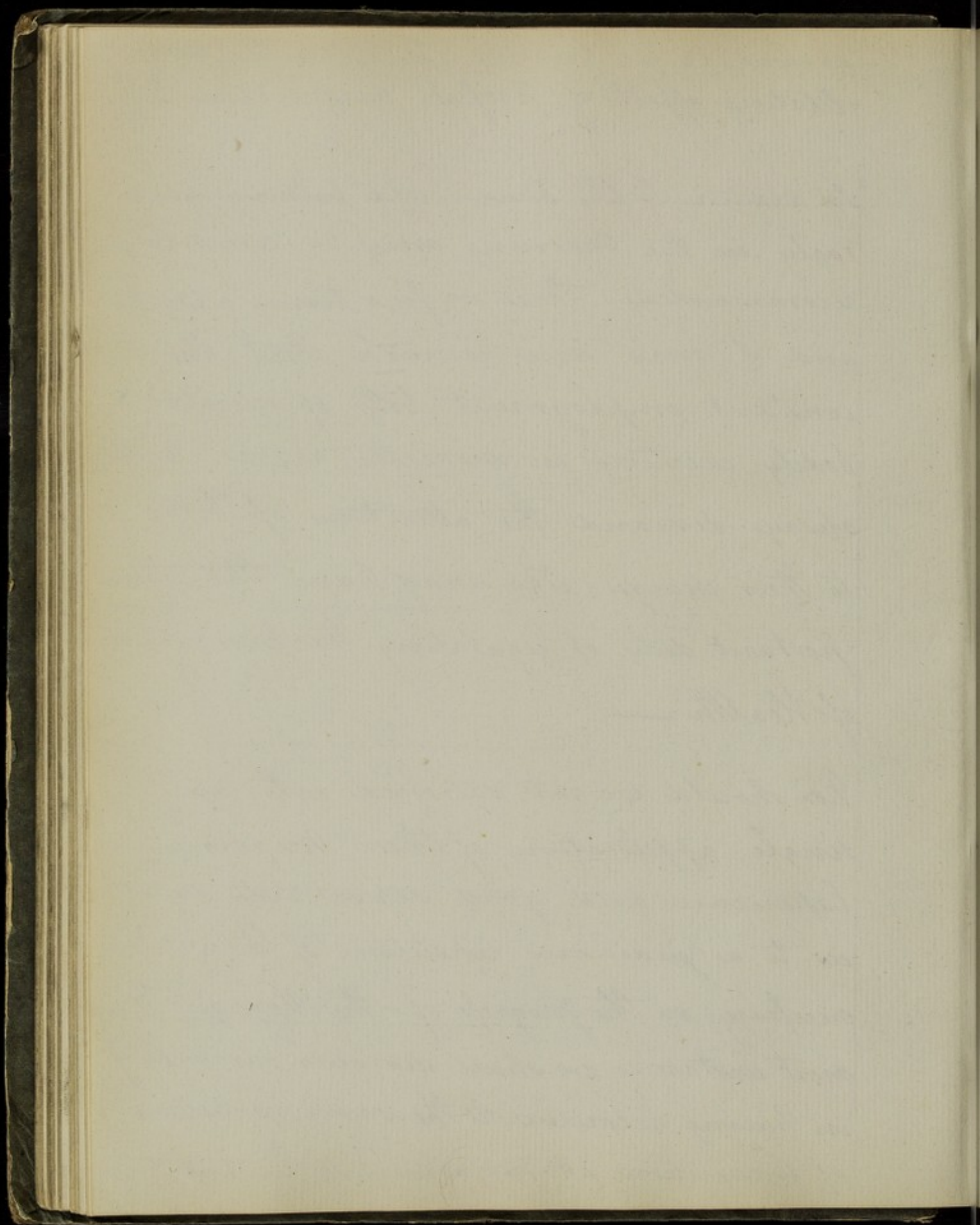
A total abstinence from all fermented  
Liquors — unless contra-indicated by some  
unlooked for contingency should be  
strenuously enjoined: — permitting at the  
furthest no greater Latitude of Indulgence  
than a Mixture of Wine with Water. This  
indeed may generally be advisable on our



arrival in the Country - to lessen the debilitating effect of profuse perspiration -

In addition to the above: cold bathing used early in the Morning may be commonly recommended - three or four times a week: and I may here remark, that the constant employment both of mental & bodily exertion in moderate degree: will always demand the attention of those to their charge; who may have the important duty of regulating the preservation of Health —

Nor should we rest satisfied with any single application of these Means. — Experience and good sense will direct us to a judicious repetition of them when necessary on the progress of the Voyage: & in most instances we shall discover our safety in having recourse to the same measures of prevention at our arrival in the Country.

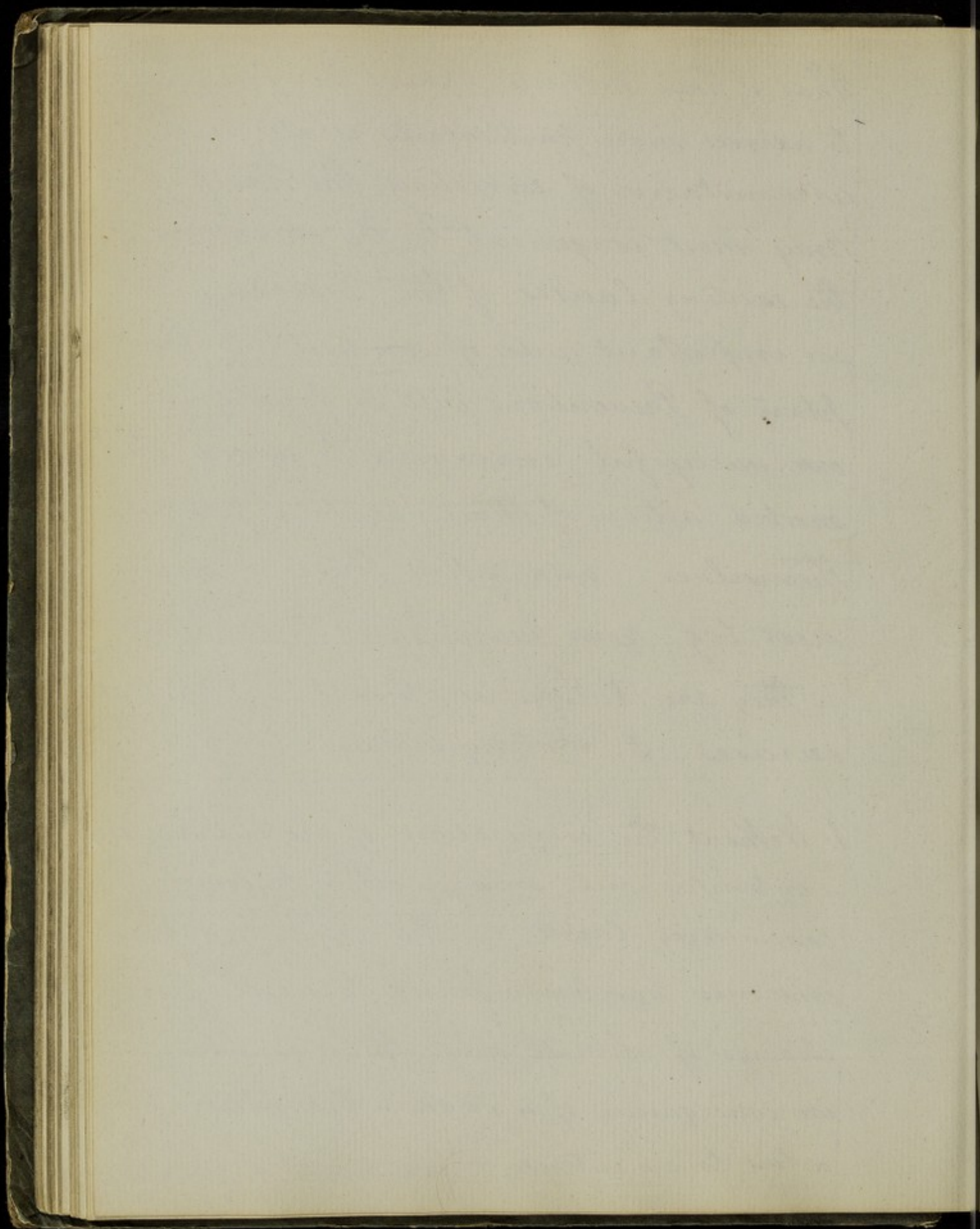


What I have hitherto taken the freedom to advise more particularly relates to the circumstance of correcting the Habit of Body most congenial to the operation of the exciting Causes of the Disease. But an important rule of conduct in the plan of Prevention will be found in our successful endeavour to avoid the morbid action of those exciting powers themselves - and upon these I must next beg your permission to expatiate.

— They are. 1. Exposure to heat — 2. Violent exercises. 3. Intemperance.

1. Without the co-operation of violent exercise, — intemperance, or any other known concurring cause, — the inflammatory endemic has been found to arise from change of climate only — that is to say — in consequence of a sudden transition from a low to an intense & permanent degree





of external temperature. This being the case, — a most important rule of prevention should seem, to avoid exposure to the sun's direct rays — and such in truth it is — But when we consider the Duties of a military life, & likewise attend to the many circumstances which lead the unwary stranger to seek his (almost) sure destruction under the burning Rays of a tropical sun to whose powerful influence he is as yet un-accustomed: — we shall feel dis-inclined to dwell much on the subject of avoiding heat as a necessary precaution: — too well convinced of the futility of advice on this Head: even when the admonition might be welcomed & practised: while at the same time we are aware of its impracticability in many instances on public service.

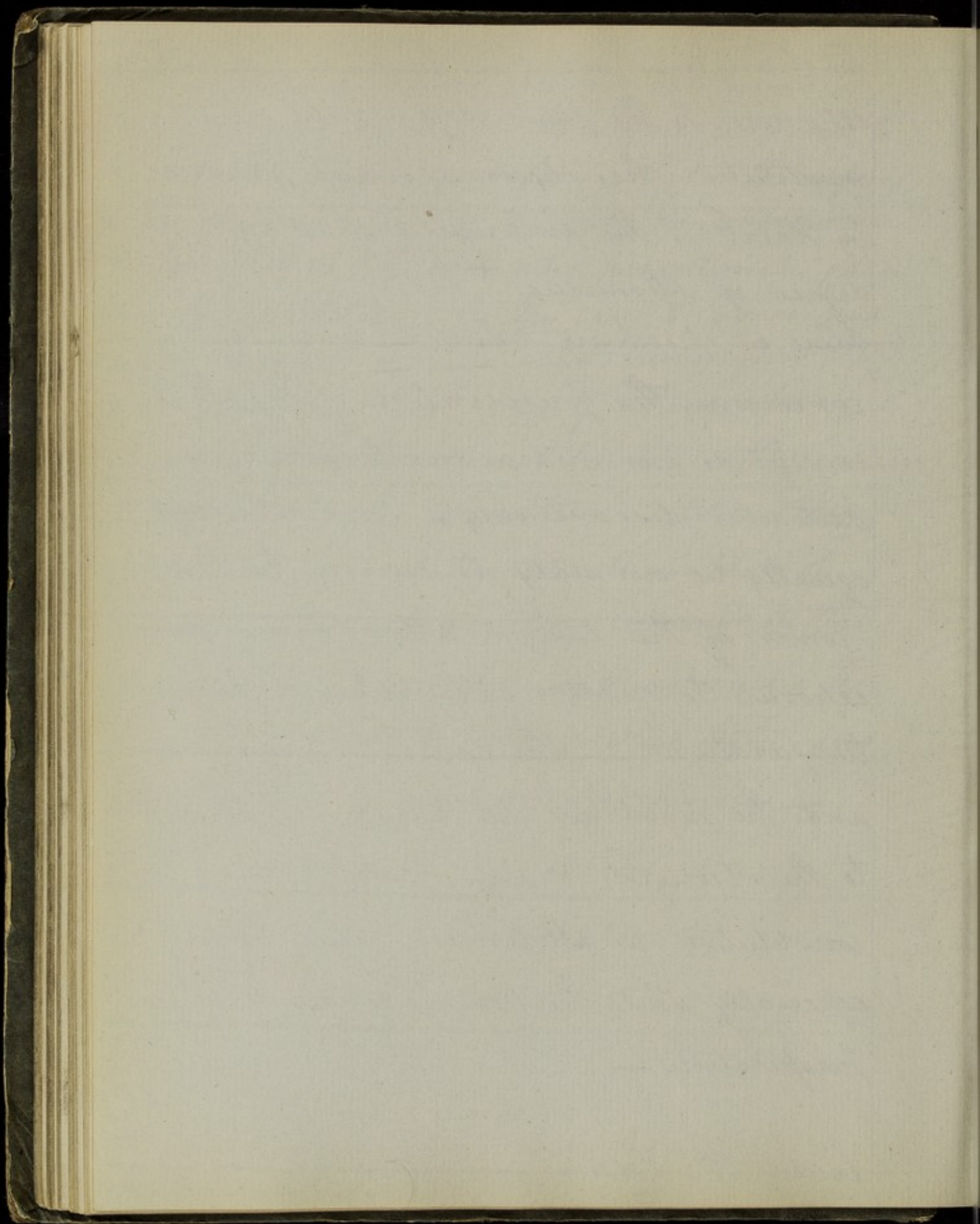
It is nevertheless our duty to recommend

+ "The stimulus of excessive external Temperature when constantly applied to those unaccustomed to it, induces a contraction (apparently) of the orifices of the extreme Vessels of the skin, in consequence of which they do not pour out a proportionate quantity of perspiration" - In this case, D. Currie has justly observed "disease must ensue from the direct stimulus of heat" - and if, the necessary quantity of perspiration takes place the system is enfeebled by the Evacuation". Upon this Observation principally rests all our plan of preventing the inflammatory Endemic on the one hand: — & of repairing & sustaining the Living Energies on the other — when these are exhausted by the impressi<sup>o</sup>n of climate —

the stranger to avoid as much as possible exposure to the sun's rays: until his constitution has become inured gradually by habit to the impression of so great a degree of Stimulus. <sup>+</sup>

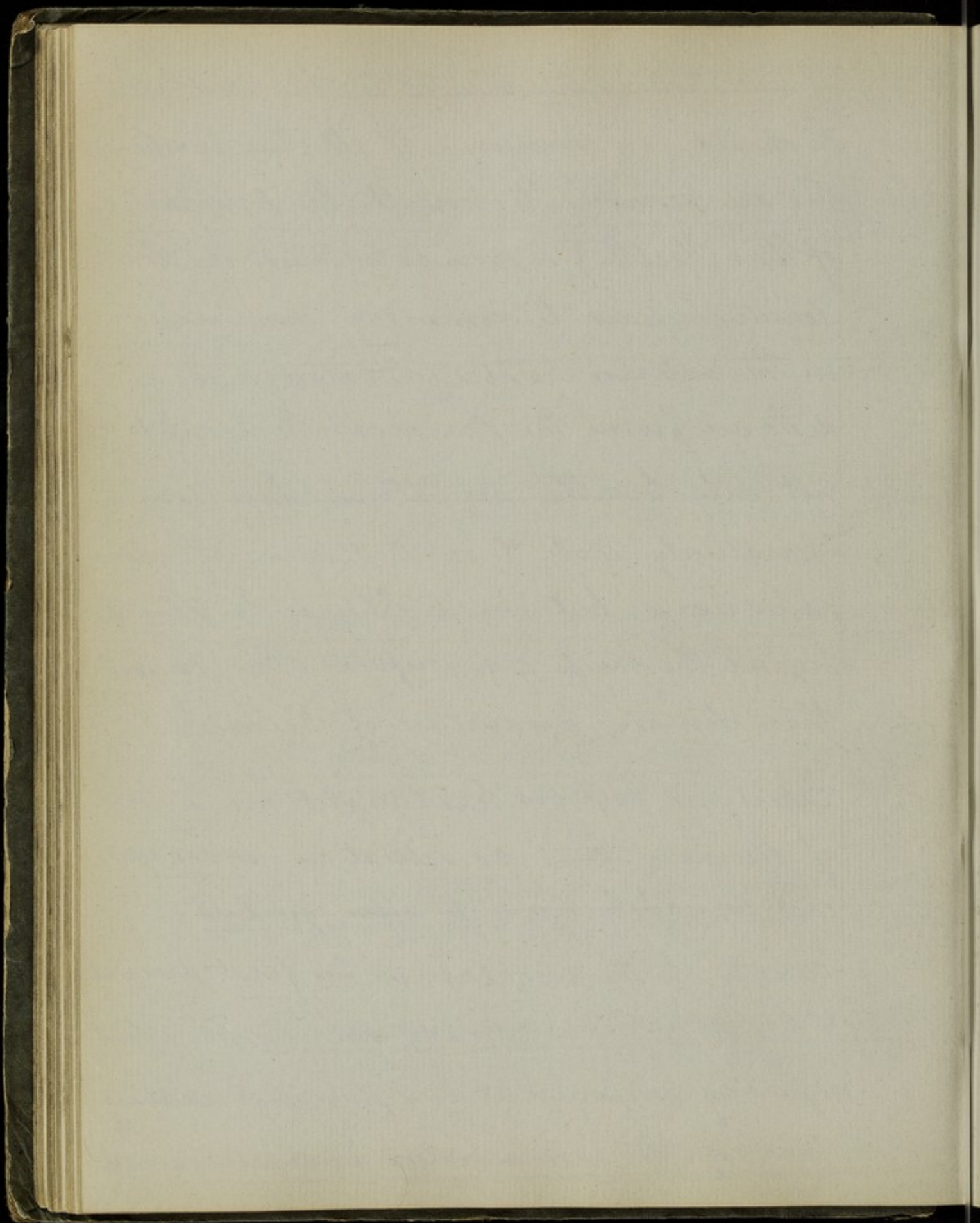
Were we speaking more universally concerning the preservation of Health than as regards our endeavour to avoid a particular disease only; — it would equally be our duty to caution the New-comer of the danger attendant upon exposure to sudden alternations of external temperature — the inclemency of season, and the night air and damps. So hurtful to the strongest, & even to the best seasoned constitution at all times — still more especially while the body is under profuse perspiration —

Could the Soldier command his choice



of situation, on his arrival in the West Indies, he should, (in common with all other Europeans who are desirous to consult the preservation of their Health) as soon as he lands in the Country repair to some dry eminence in the interior: where, elevated & at a distance from the sea shore he would not only breathe an atmosphere comparatively cool, & on that account alone salubrious; but would likewise be placed beyond the reach of manifold other causes than climate, productive of Disease.

Experience however has taught me to be of opinion, that no situation or season can be safely said to offer perfect security to the European on his first arrival & pre-disposed as already mentioned. — but regarding excessive heat as a principal exciting cause of the inflammatory endemie; every

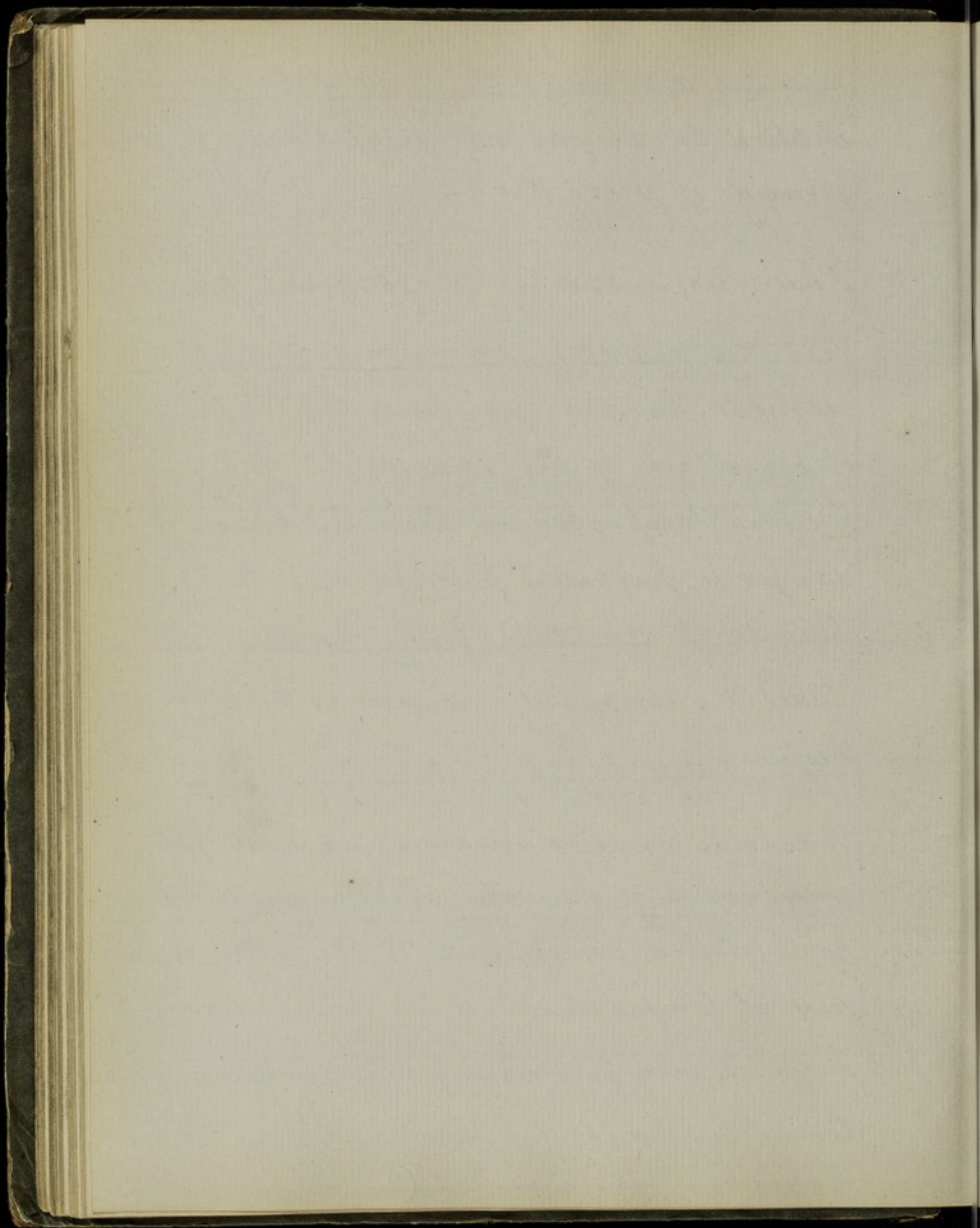


material rise above the level of the sea is entitled to much consideration as a good ground of prevention.

I have remarked in the foregoing paragraph that no situation or season entirely exempts the stranger from the possibility of an attack of the Endemic - Yet must I nevertheless observe that the degree of danger is, probably proportioned to the periods of departure from Northern Latitudes & subsequent arrival within the Tropics -

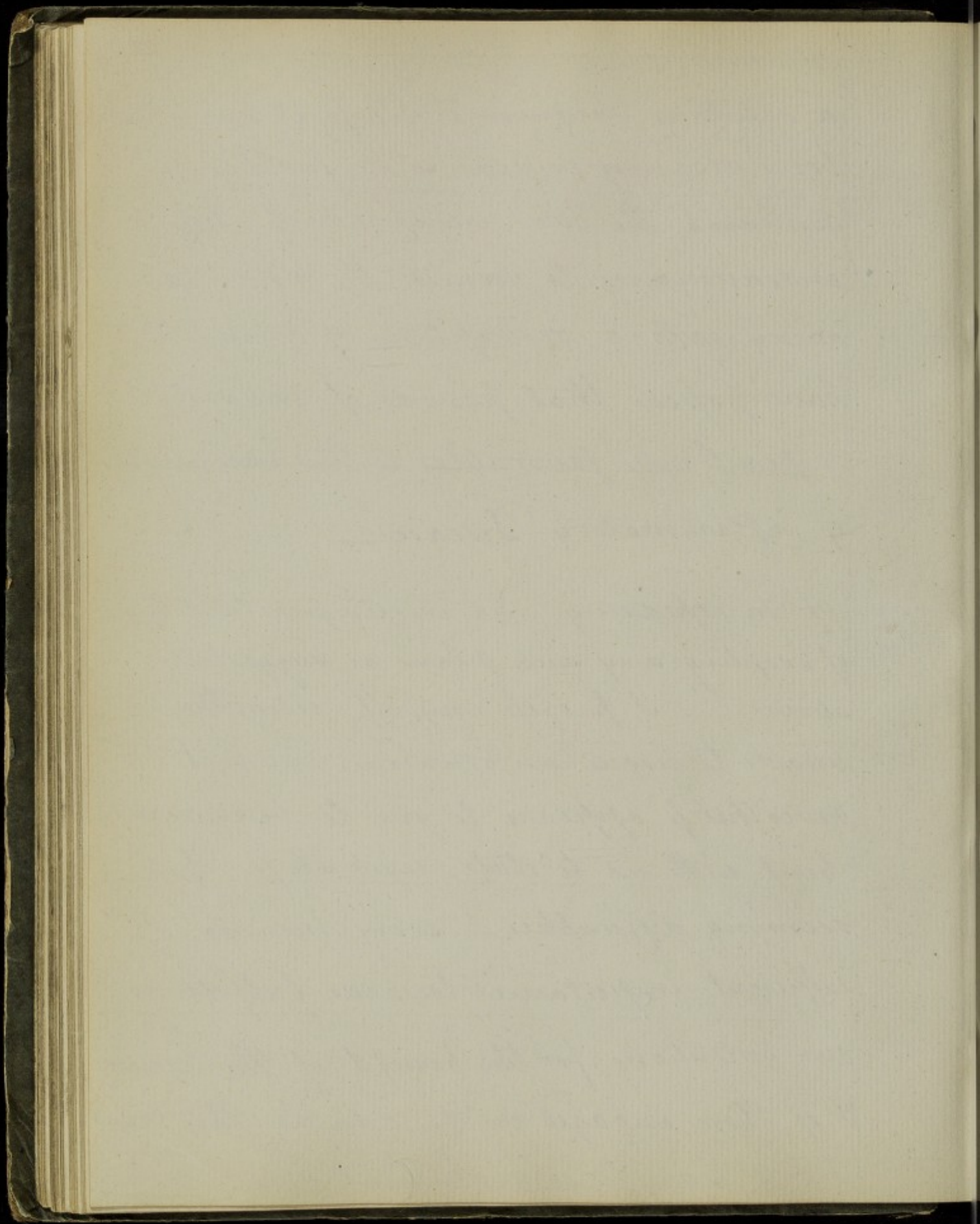
To provide in some measure against the consequences of a sudden change of climate, from almost one extreme to the other in the scale of temperature; it has been advised (& I think very judiciously) to season English troops by previously sending them to Gibraltar, or some other situation



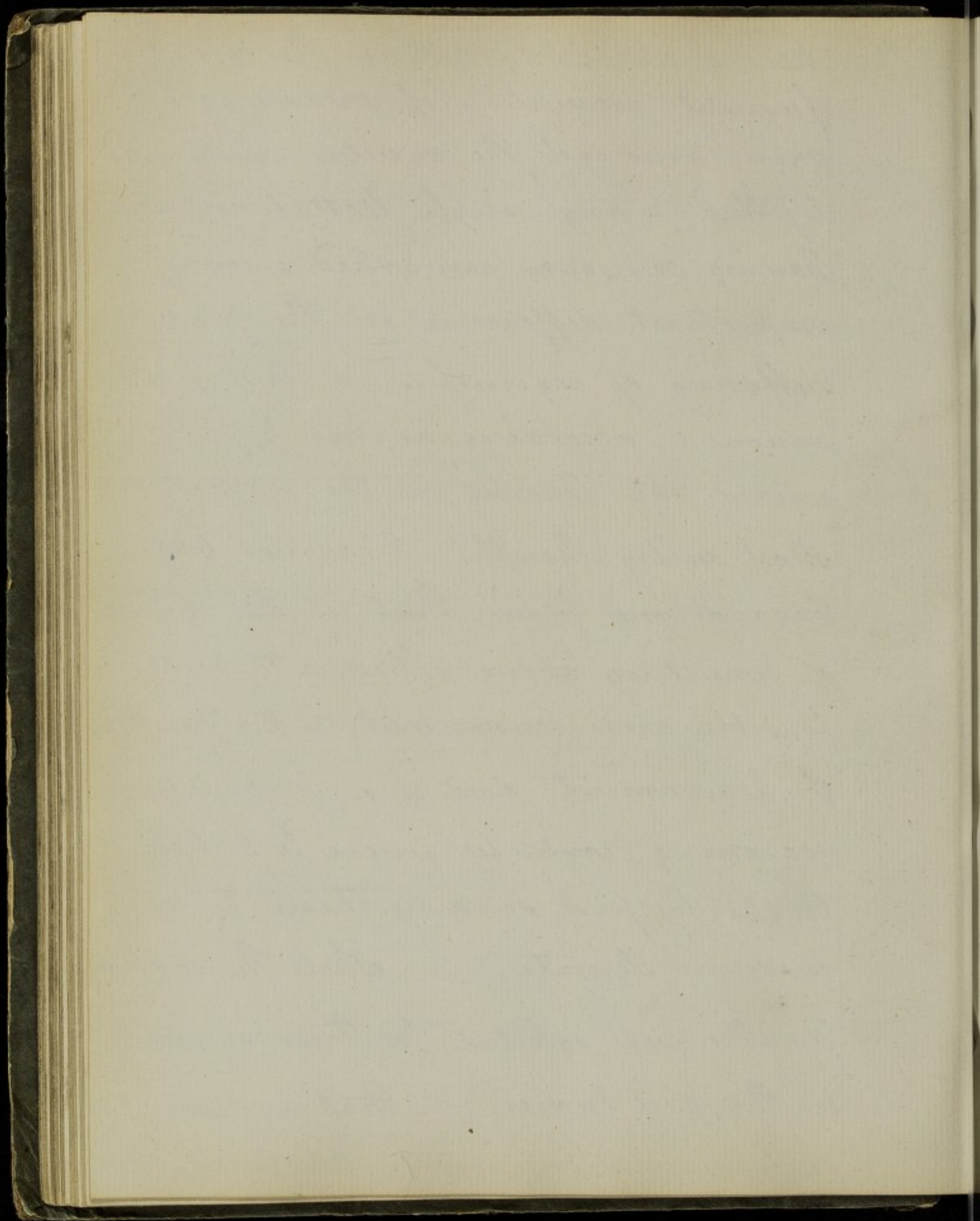


situation, which might equally present  
a salutary medium: While it has likewise  
been recommended still further to  
diminish the Evil we speak of, by  
endeavouring to recruit the West India  
army with a description of Men who  
have passed that period of their life,  
so peculiarly favorable to the invasion  
of inflammatory Disease—

Of the expediency and indeed practicability  
of adopting any such plan as suggested  
above— I profess myself altogether  
unable to risue an opinion:— it  
nevertheless appears to me to be incumbent  
-ent with us to state, regardless of  
seeming difficulties— every means of  
sufficient importance towards fulfilling  
our intentions for the benefit of the Service,  
& of those engaged in it: and in this view  
I beg leave to remark that from having



having attentively noticed the more frequent exemption of middle aged men amongst the varieties which meet together in any single Battalion: and having moreover remarked a very important difference in the general suffering of regiments on their first arrival; according as they had reached this Country in the coolest or most sultry Months: I cannot but hazard my belief, that if the method of recruiting above alluded to, were feasible and convenient to the purpose of Government: and if a preparative seasoning could be given to British troops by first sending them to a medium climate — while the cooler Months were selected for their arrival in the West Indies. — that under such regulations much mortality



would be thereby prevented:—in so far at least as might be occasioned by the inflammatory endemic incidental to northern strangers—

2. As severe exercise in torrid climates can never be performed to any great extent without co-operating with excessive heat; so undue muscular exertion— it is pretty obvious, in my opinion, must prove invariably hurtful to the unseasoned European constitution— by increasing the heat and action of the whole circulatory system. What has been advised therefore on the subject of avoiding heat— applies in this place with equal propriety—

But, as it would be truly absurd to enjoin the soldier to remain at rest, whose duties may

+ "About the Year 1780, at <sup>1</sup> the time military operations were carrying on in India, the 72 Reg<sup>t</sup>. soon after their arrival: in one March left behind them 200 men. Many of these expired almost instantly through mere oppression from Heat and Fatigue. The greatest number of the rest died of Fevers in consequence"

"In June 1794: <sup>2</sup> The army in Flanders had long and fatiguing marches between Ostend & Ghent. The weather was unusually sultry. Several of the soldiers then dropped down in a state of insensibility or Coma. Others were seized with apoplectic symptoms: & all were bled & relieved by it"

<sup>3</sup>  
"In India - in 1797 - An European Regiment just arrived, but very much addicted to drunkenness: — after a night's debauch, were taken out in the morning to be marched a few miles, to sober their senses. The sun rose — the men lagged — many dropped. Six were brought in dead. 100 were taken to the Hospital & several died with Fevers."

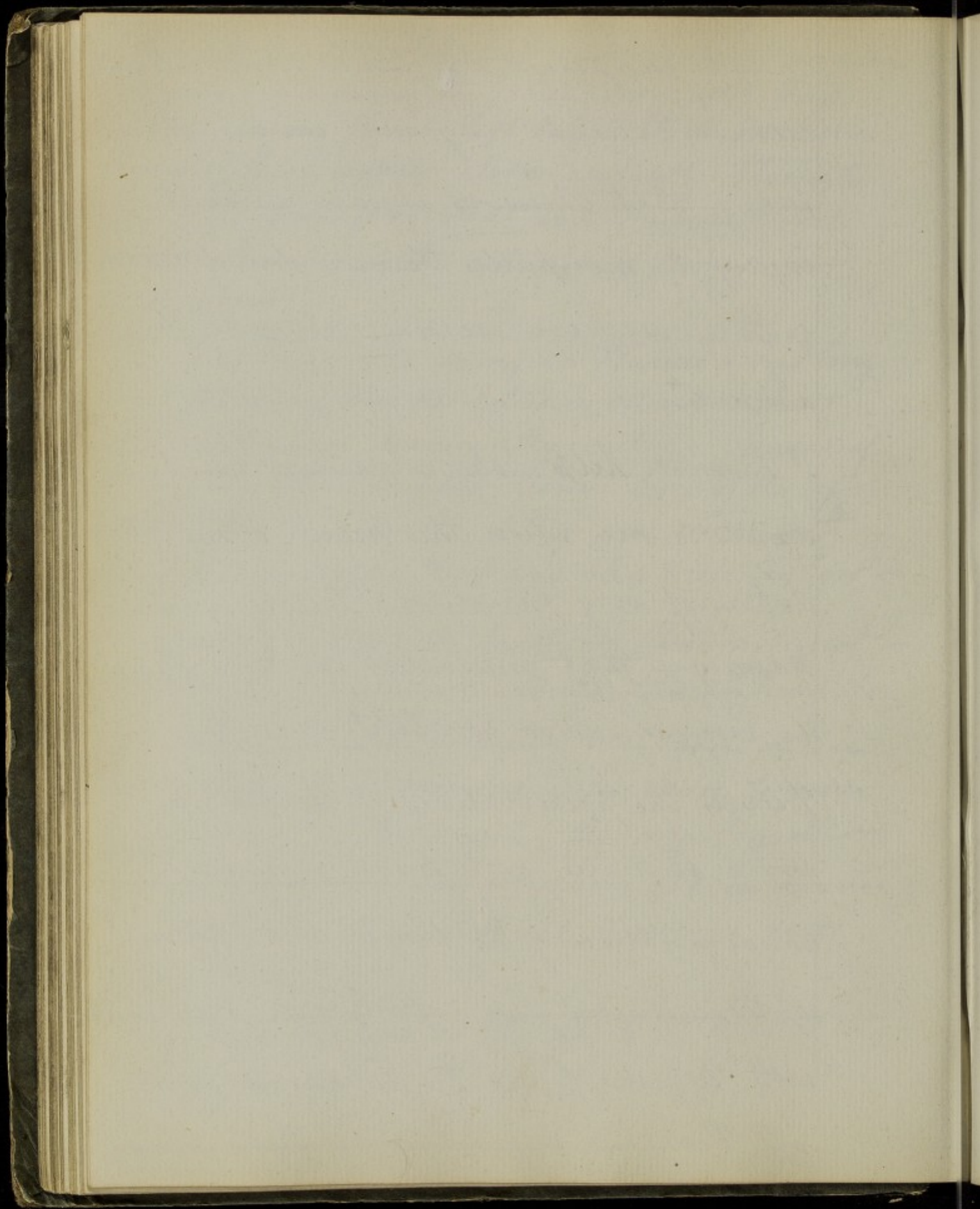
Christie's remarks on the effects of heat & Fatigue &c

may be inseparable at times from laborious  
exercises: — we may only caution thus  
far: — that whenever it can without  
injury to the public service be dispensed  
with — excessive exercises should be  
avoided.<sup>+</sup>

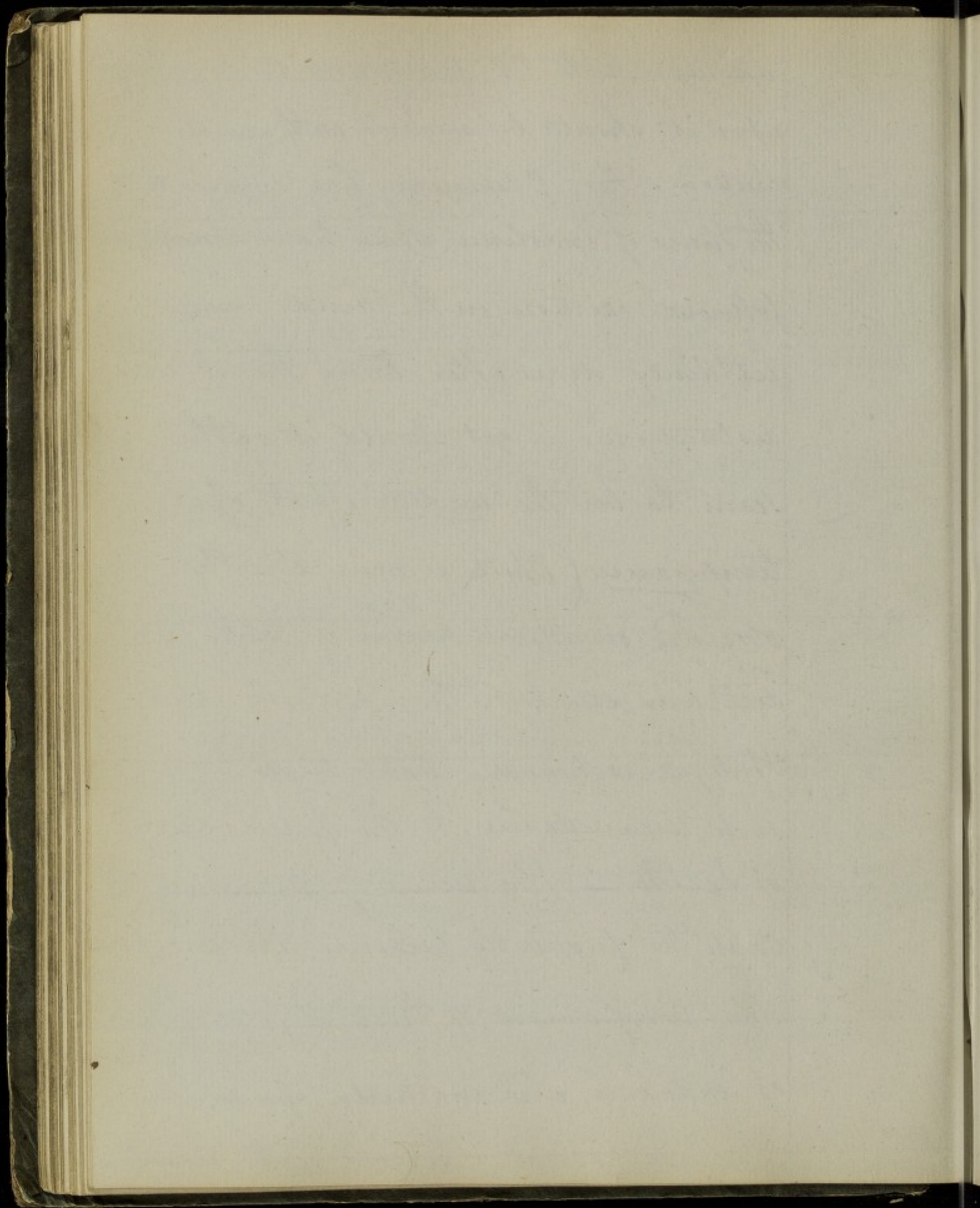
I cannot help observing here, what  
seems to me, upon this head, a mistaken  
notion of very pernicious tendency.

Namely — that muscular exertion should  
be considered so absolutely necessary  
towards the preservation of Health in  
torrid climates as to have induced the  
condemnation of the benevolent practice  
of Government — in supplying Regiments  
with Negroes, to do the laborious duty  
of Pioneers — — — — — Such an





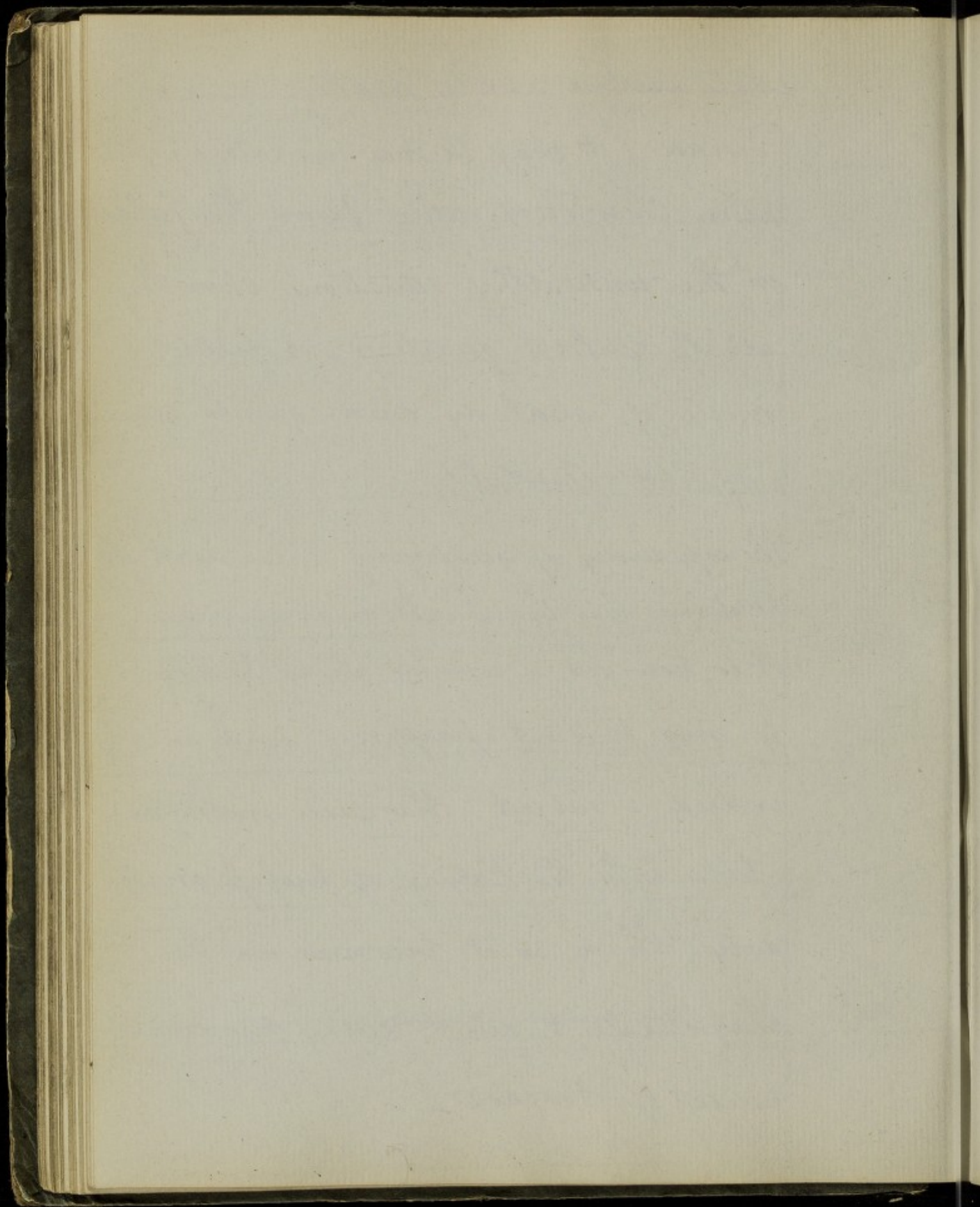
Opinion, with the recommendation grounded upon it, should be received with much caution. For, if experience has evinced that the hours of indolence which have sometimes followed exertion in the Field, more certainly draw after them the Soldier's destruction: — yet should it rather seem to be the united effect of temperance (which is more strictly observed on actual service) both in diet and exercise, than excessive labor & fatigue exclusively which tends, under such circumstances to the preservation of health — The leisure of debauchery which too frequently becomes the inseparable companion of those ill fated hours of indolence and inactivity should be likewise equally avoided with inordi-



=mate exercise; while another cause of Disease (it may be here remarked) often arises when Troops retire from the field, in the unhealthy situations where they are of necessity quartered - a fertile source of malady and much consequent Mortality -

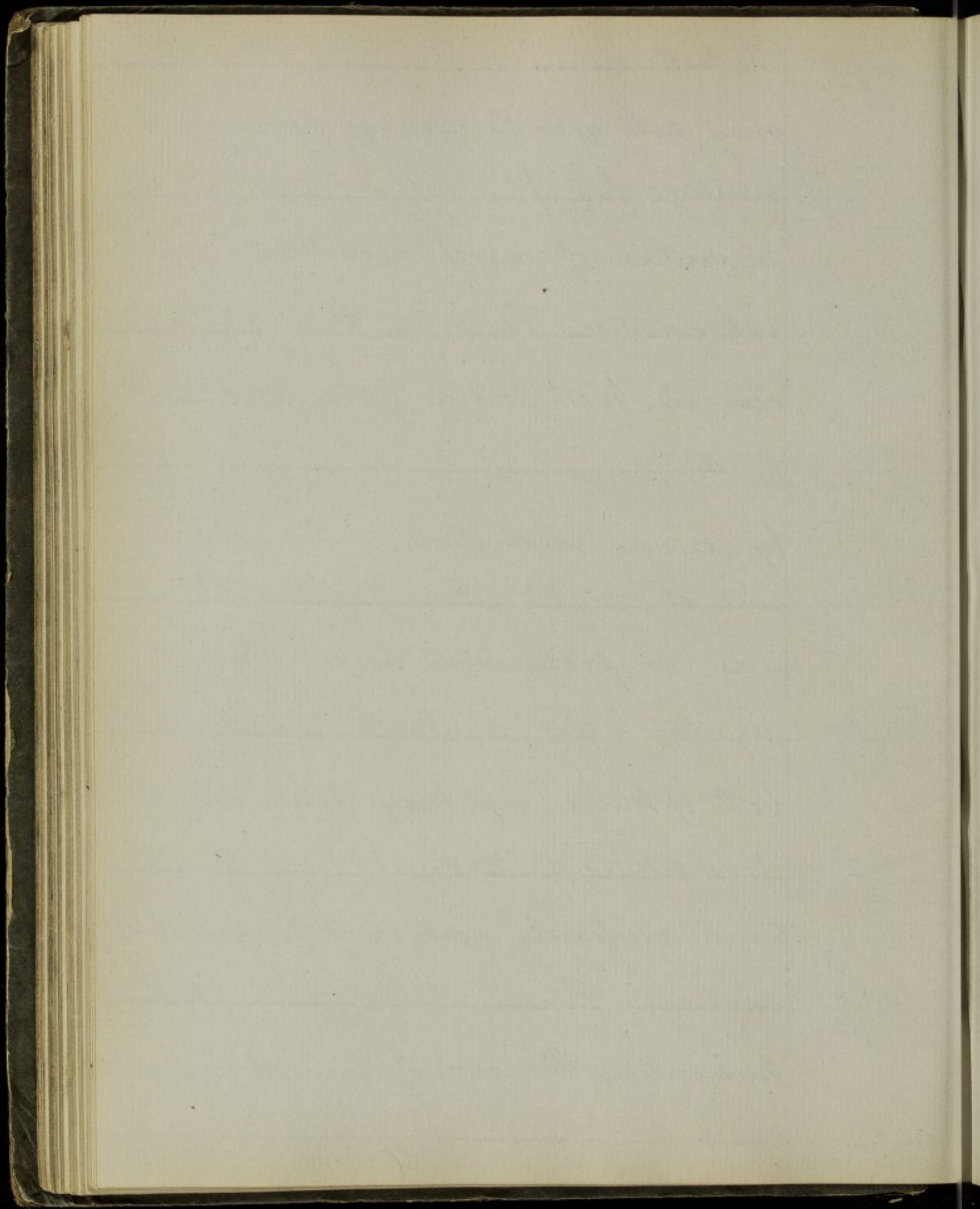
The expediency of occupying these unhealthy Positions has been called in question.

It is however a consideration foreign to my present purpose - and is indeed a subject otherwise incompatible with the Nature of professional duty - than as it becomes us to investigate & detect every producing Cause of Disease -



The best means of obviating their Effects, may, with your Excellency's permission, occupy hereafter some pages on the prevention of marsh remittent and intermitting Fevers, as these occur in several West India Garrison —

On the Subject of Exercise I shall conclude by advising moderation, as the golden rule of conduct when practicable — as comprehended under the regular and constant employment both of Mind and Body which duty when directed to its Object will at all times necessarily and most providentially impose — thereby, at the same time preventing the evil of greatest magnitude — the worst fruit of Indolence

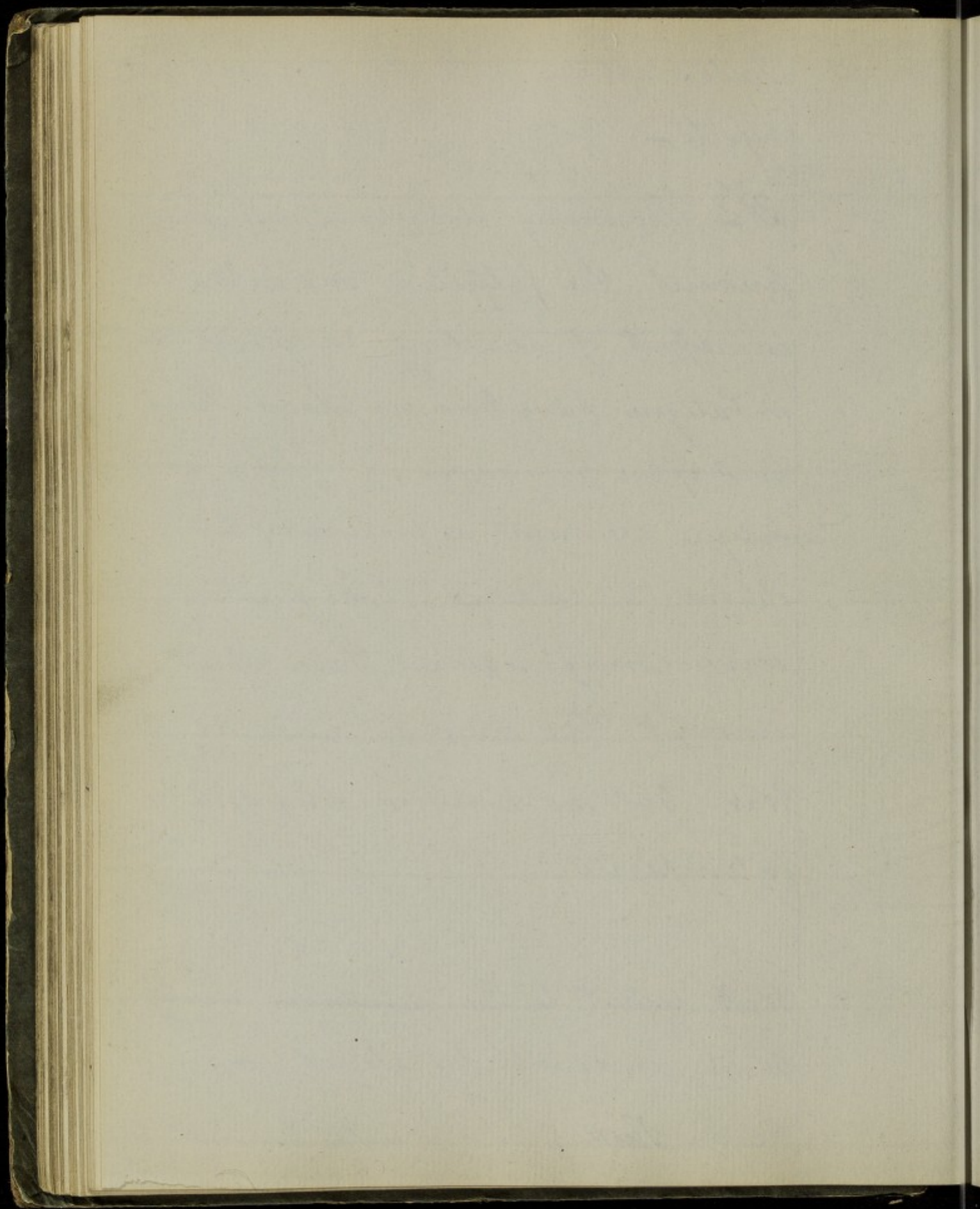


Intoxication with its concomitant effects -

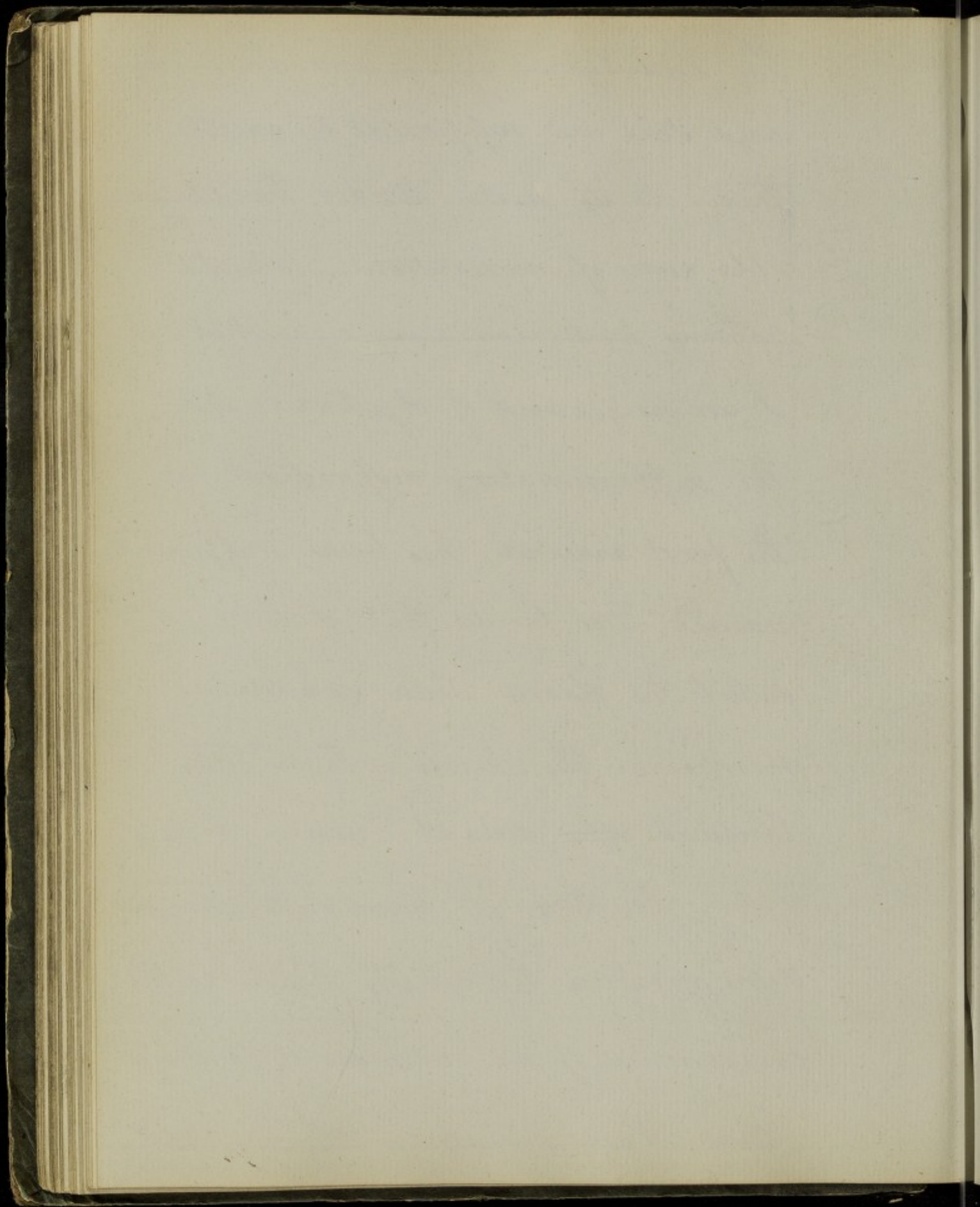
3<sup>dly</sup> - The many obstacles which might prevent the fulfilling our intentions in respect of avoiding excessive heat or Fatigue have here no place. Heat must often be endured - Labor and Fatigue we must, as frequently be obliged to undergo. The public service may require these which are amongst the common accidents of War; but no man is obliged to be intemperate -

With respect to the common use of Wine, as drunk by almost every person whose finances will permit

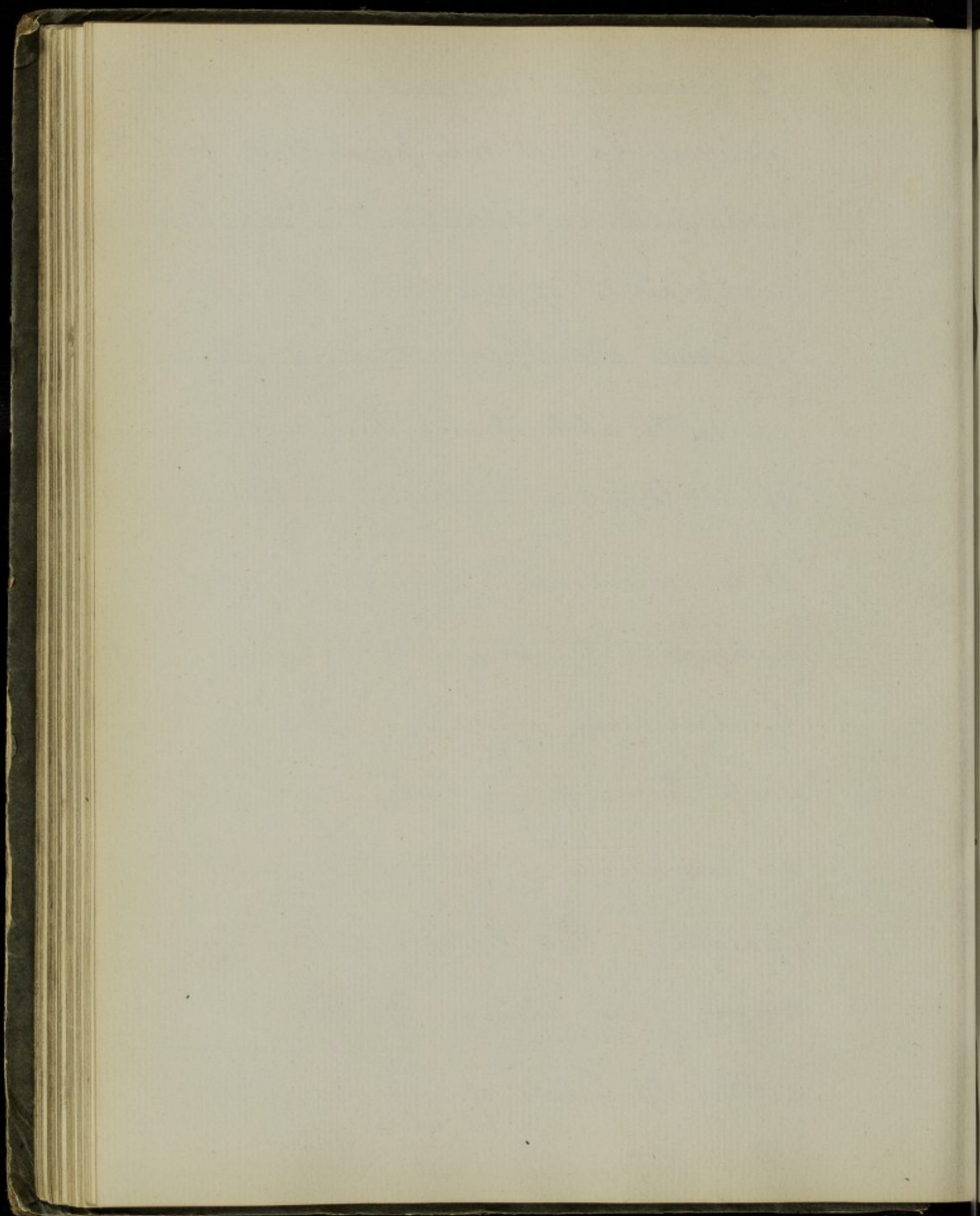




The indulgence — and whose age  
and Sex are supposed to entitle  
them to its use. Under the invariable  
rule of moderation — (should  
nothing particular arise against it)  
I see no ground of objection after  
the inflammatory disposition on  
the first arrival has been sufficiently  
reduced. For besides that it conduces to  
dispel the gloom which sometimes  
overspreads the Minds of those who  
languish after distant Friends &  
native Country: it counteracts also, in  
some measure the debility which is the  
consequence of an immoderate perspira-  
-tion. Nay I shall go the length

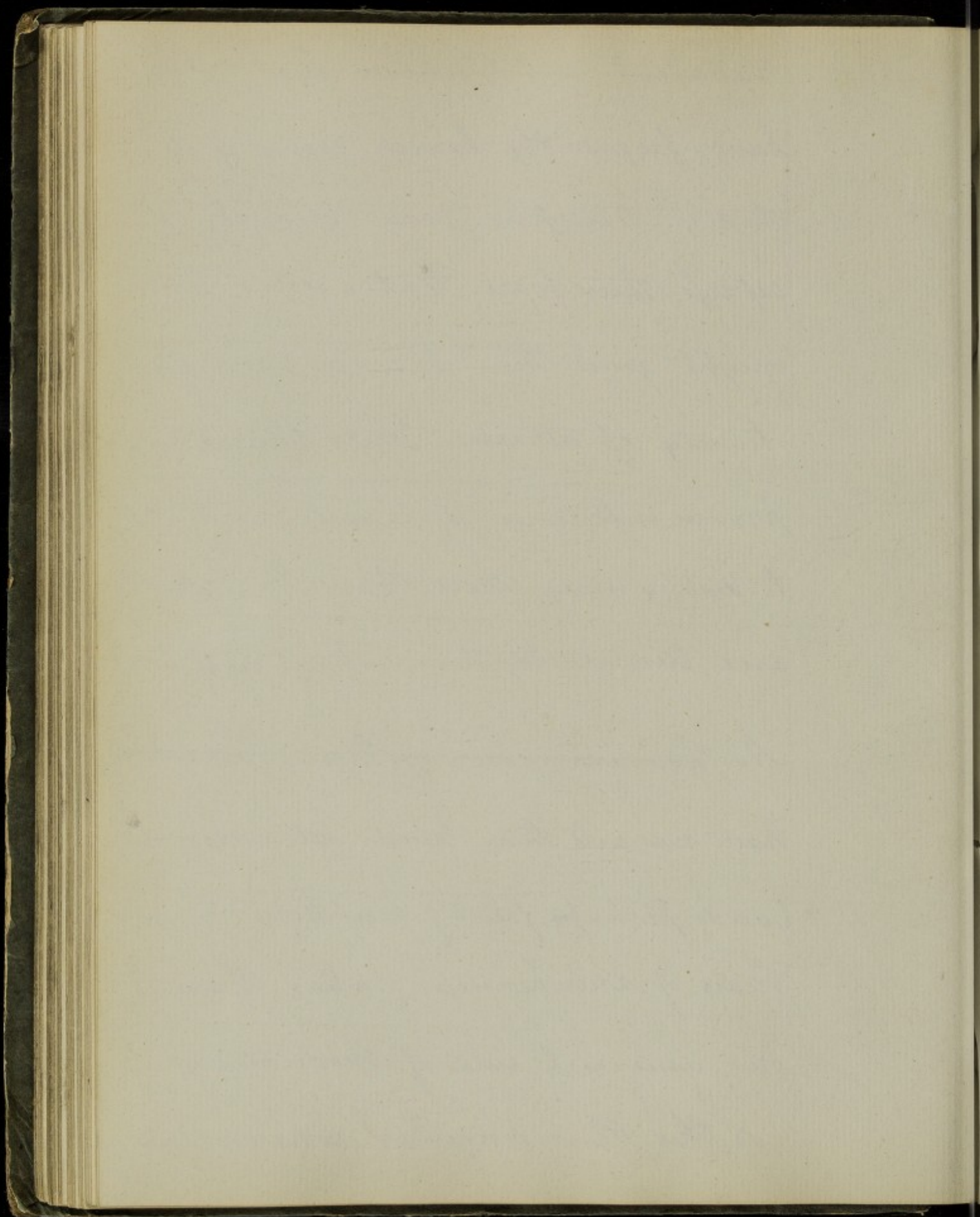


to advise that a moderate quantity  
of wine be not only permitted but  
enjoined in situations where bowel  
complaints of a certain Character  
prevail - & where we may have  
cause to apprehend the influence  
of contagious or marsh Exhalation  
It is however very idle to imagine, &  
dangerous to advance an opinion: that  
by drinking Spirits or wine, we  
shall thereby fortify ourselves against  
an invasion of the inflammatory  
Endemic - the Disease of New comers.  
arising from change of Climate. Yet,  
within the limits of my observation  
this has become at times so



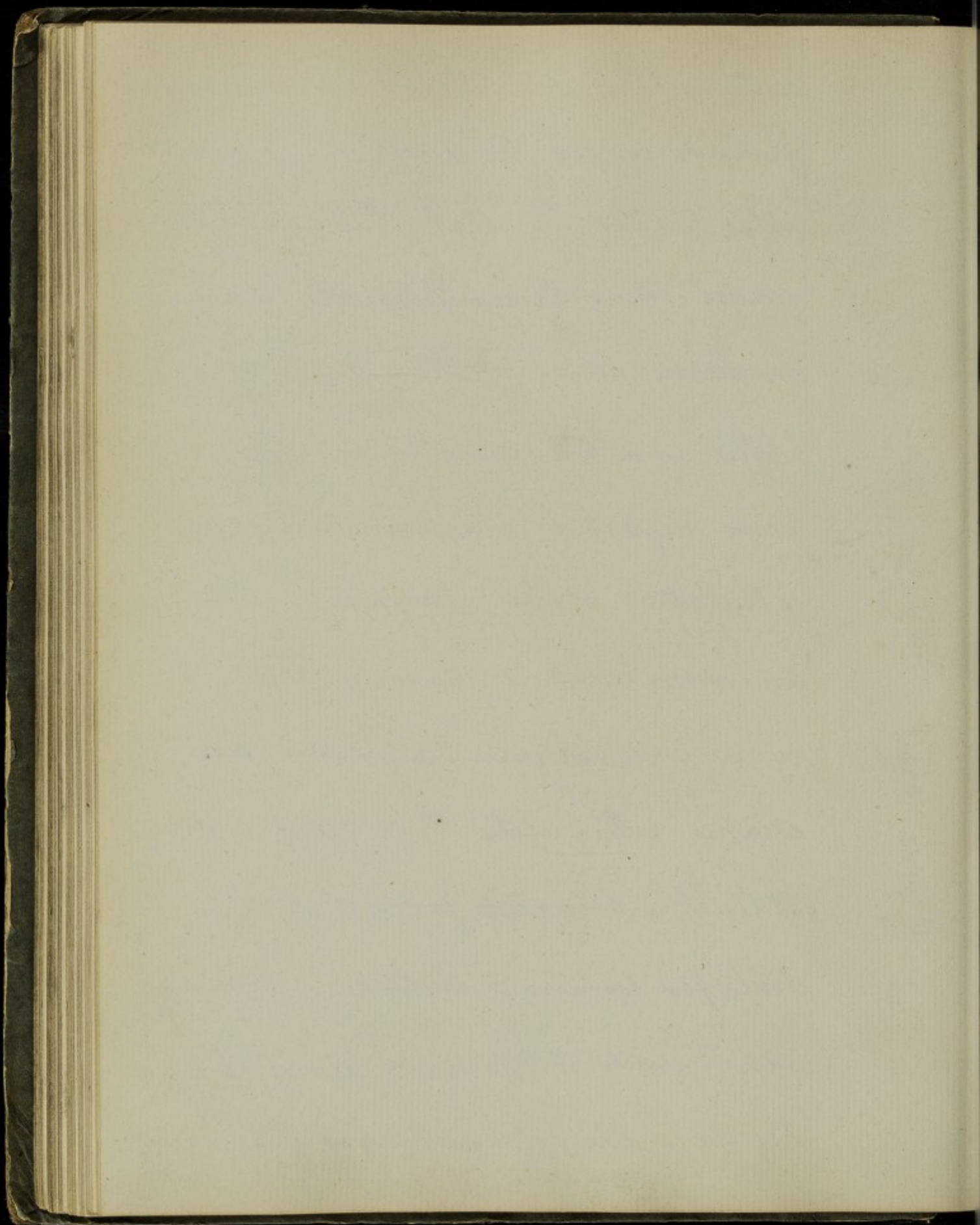
prevailing an opinion that, I  
have frequently heard some of its  
chosen Disciples very seriously  
express their fears that a sober hour  
might give the Disease an oppor-  
tunity of attack. When this example  
proves infectious, it is well calculated  
to destroy more men than the sword  
and climate together, without such aid.

As however some of these Philosophers  
have now and then lived extraordinary,  
(and perhaps fatal) exceptions to our  
Fears of drunkenness - rather than to  
our universal rule of moderation:  
- so this, their singular conservative



doctrine has seldom failed in gaining ground under the auspices of many able masters. But the inebriate school thus triumphantly reeling in admiration of their darling specific and preventative — seem to have neglected a circumstance, in the calculation of their success — not unimportant: — namely, that to every individual Drunkard who escapes with safety their fiery ordeal, at least a hundred fall its victims, while few women or children; — I may add French or Spaniards die of this Disease — who seldom if ever they drink





to except - In a word, whatever  
power we may allow wine to possess in  
restoring strength: or in securing the  
well-seasoned and reduced constitution  
against the baleful influence  
of marsh effluvia or of other Diseases,  
directly debilitating: I am well  
convinced, by experience, it can  
possess no such preservative quality  
against an attack of the Endemic - to  
the nature of which disease, its opera-  
-tion is congenial, & it should there-  
-fore, for a time be carefully & sparing-  
-ly used by every stranger who arrives  
in this climate from northern latitudes  
- more especially should he possess a

+ The following Note is transcribed from a Report I did myself the Honor to make in 1801. to the Head of the medical Department in the West Indies - "On Fever as it appeared in the 1<sup>st</sup> Batt. Royals at Saint Martin" - when I was Surgeon to that Regiment.

"Many men were attacked with the first symptoms of the Fever, while rendered wholly insensible of their very existence, by a shocking state of intoxication. Which, every possible exertion of the best regulated Discipline could never effectually prevent. Nor could the most sedulous Inquiries ever lead to a detection of those unwary Men who, in some instances conveyed Rum into the wards of the Hospital - A practice not unfrequent amongst those who referring their present exemption from Disease to a preventive Virtue in the dreadful abuse of strong drink - gave an unlimited loose to the most destructive intemperance, which no dread or

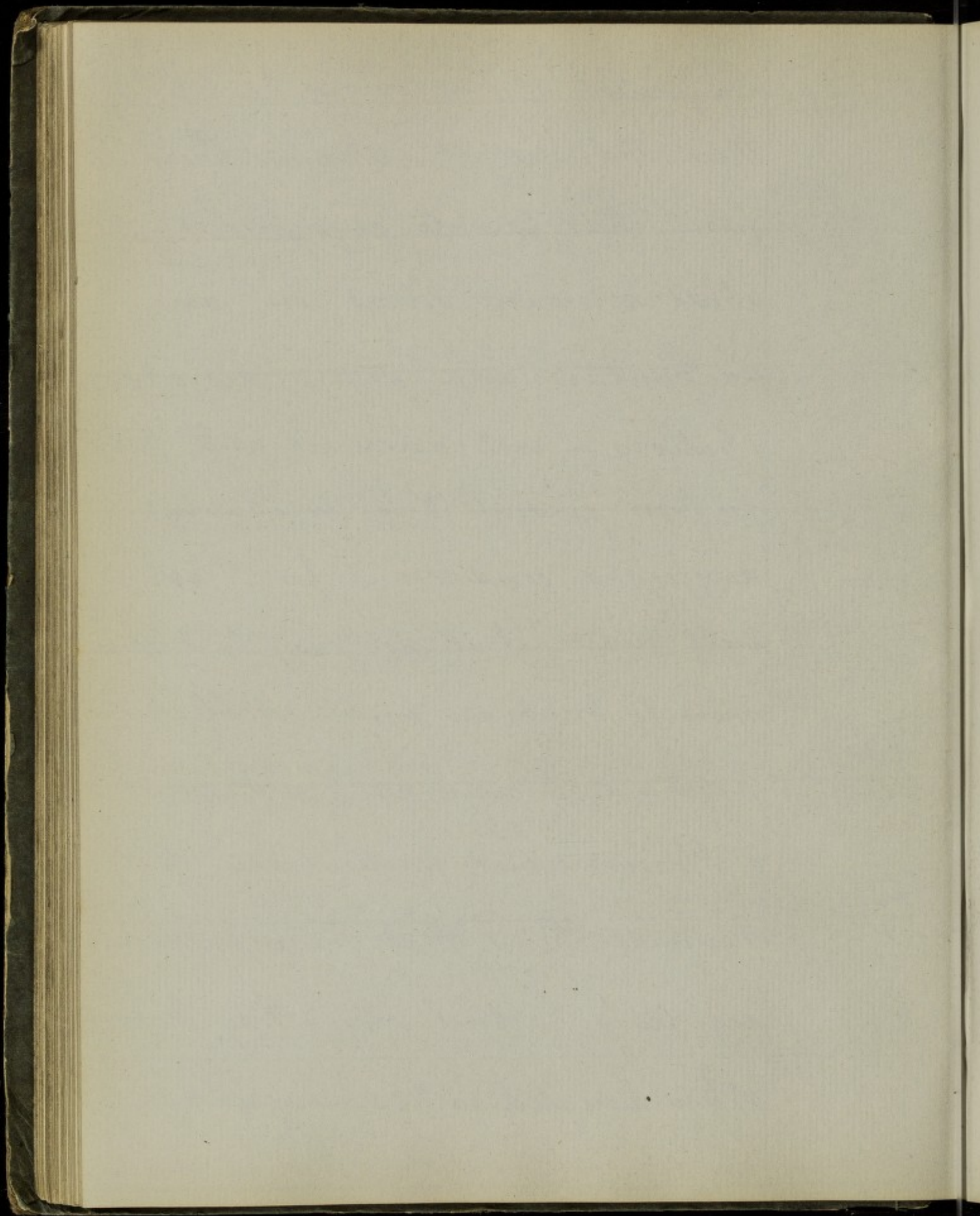
temperament and constitution favorable  
to the invasion of inflammatory  
Disease.

The consideration of wine applies to all  
fermented Liquors - and to every expe-  
rienced and candid practitioner in  
Medicine - or other accurate Observer:  
it is but too well known what have  
been, at all times, the dreadful  
consequences of excess<sup>+</sup> -

Or the still more pernicious, but too  
frequent custom of dram drinking,  
grog drinking, or any other poisonous  
means of debauchery & dissipation,  
which may be had recourse to under

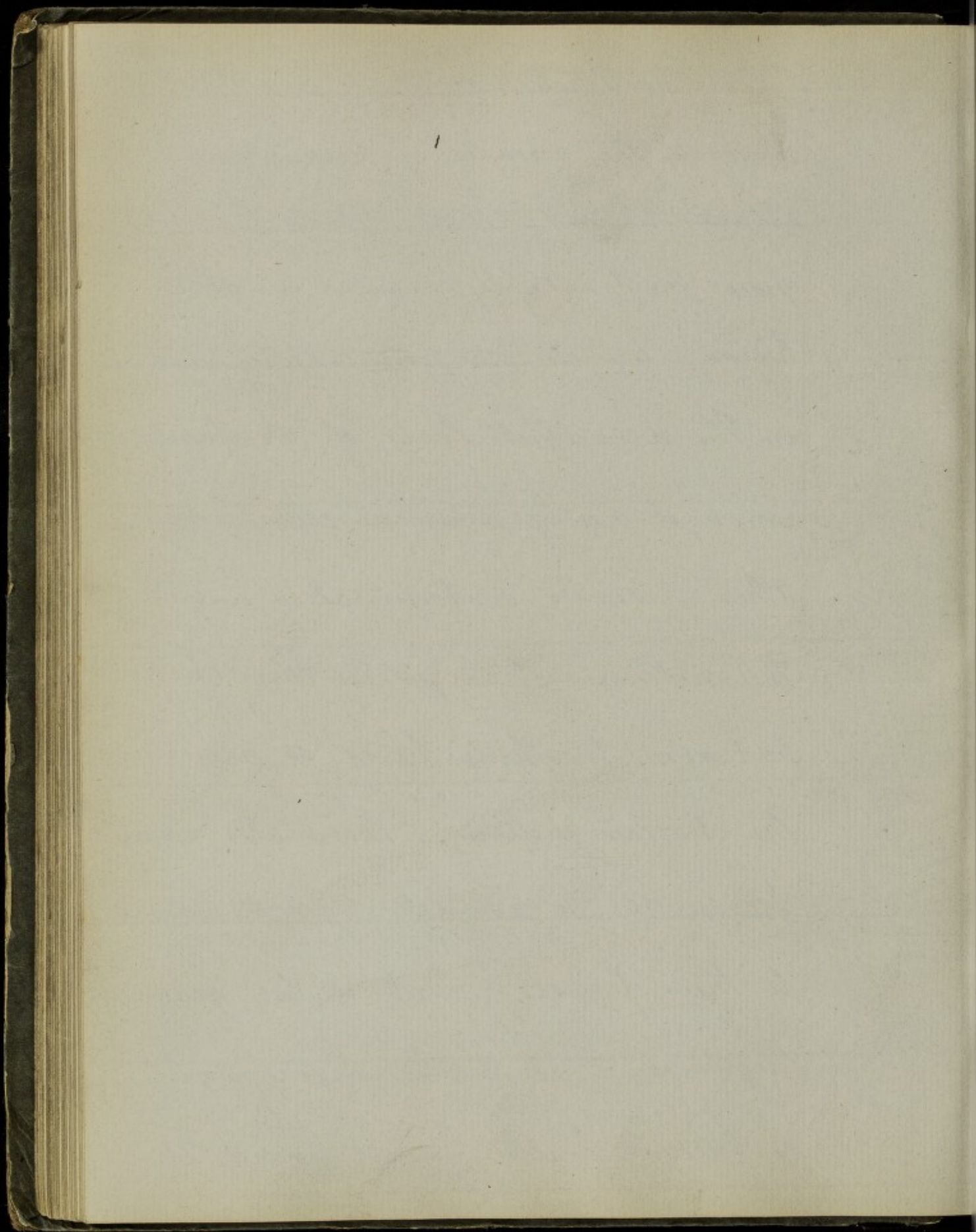
example of punishment was sufficient  
to check" -

the pretext of preserving health by those who cannot withdraw themselves from their favourite enjoyment: I shall remain silent in an unlimited and entire dis-appro-  
-bation - not un-mixed with pity for their conduct & too probable dangerous condition - for I am well aware "it is not easy to engage men to break in upon established habits; or to renounce the pursuit of Pleasure: and particularly to persuade them that those practises are truly hurtful, which they have often repeated with seeming impunity."



I have only touched upon, and that but cursorily the means of preventing an attack of one Disease, which has been now particularly regarded with terror, by its preponderating influence in the dreadful scale of mortality amongst newly arrived europeans. Other Diseases unfortunately await the northern stranger in this climate, but none to which he is so peculiarly the chosen victim. These also may frequently be avoided by attending to their causes. But it too generally happens, that in the enjoyment of present health — we regard it as





a Possession is permanently secure: That few pains are taken to preserve it from impending danger. Hence how often do we become almost, as it were unnecessarily afflicted with maladies in this country, which we know from woeful experience to be ir-remediable in our Hands - neither our art or utmost care being equal to stay their fatal course - although prudence might have prevented their first invasion had her salutary Counsels been timely consulted.

In endeavouring to trace the History of the inflammatory Endemie in

\* It may not, it is presumed be impertinent  
my mentioning that during nearly thirteen  
years Tour of West India duty; — I have  
been stationed in the several Colonies of,  
Barbados, St. Vincent, Baliseau, Martinico,  
Trinidad, Dominico, Antigua, St. Bartho-  
= lomeu - St. Martin, St. Kitts, Antigua again,  
Barbadoes a second time - then Demerara,  
- Berbice - and lastly Grenada -

a pretty extensive field of Experience,\*  
I have seldom failed in discovering  
its origin to be very intimately  
connected with an un-necessary expo-  
-sure to the hurtful exciting Cause:  
or to be more or less under the dominion  
of some glaring & extravagant act  
of imprudence - After all, we  
must not presume that by any  
scheme however plausible and well  
supported it may appear: - to  
prevent entirely the visitation of  
sickness, and mortality, the inevi-  
-table condition of mankind - who, however  
by their own actions, often court  
destruction. "Men who change

+ I am aware it would occasion surprize in some, & severe reprehension from others — that in any tolerably rational scheme of preventing the "Yellow Fever" — the employment of Mercury has scarcely been noticed. Indeed, the fashionable Character it has obtained, entitle it to Consideration. Therefore, I beg leave to submit my opinion of this, at once preventive & curative specific — by transcribing the following Note from my "Report" mentioned before — "on Fever as it appeared in the 1<sup>st</sup> Batt. Royals —

"Mercury did not appear to possess a preventive power — as Men under Ptyalism — excited to a gentle extent for the cure of Syphilis, took the Disease very readily — Nor did it, on a fair trial, appear to be specific in the cure —

I have been indeed led to attribute subsequent Debility, with morbid affections of the digestive organs to its too liberal use — encouraged by great expectancy — Many of my patients recovered from severe attacks without its assistance: & that with a comparatively less tedious period of Convalescence. Nevertheless,

"Their native for a distant climate may be considered as affected in a manner somewhat analogous to plants removed into a foreign soil: where the utmost care and attention are required to keep them in health, and to inure them to their new situation; since, thus transplanted, some change must happen in the constitutions of both"

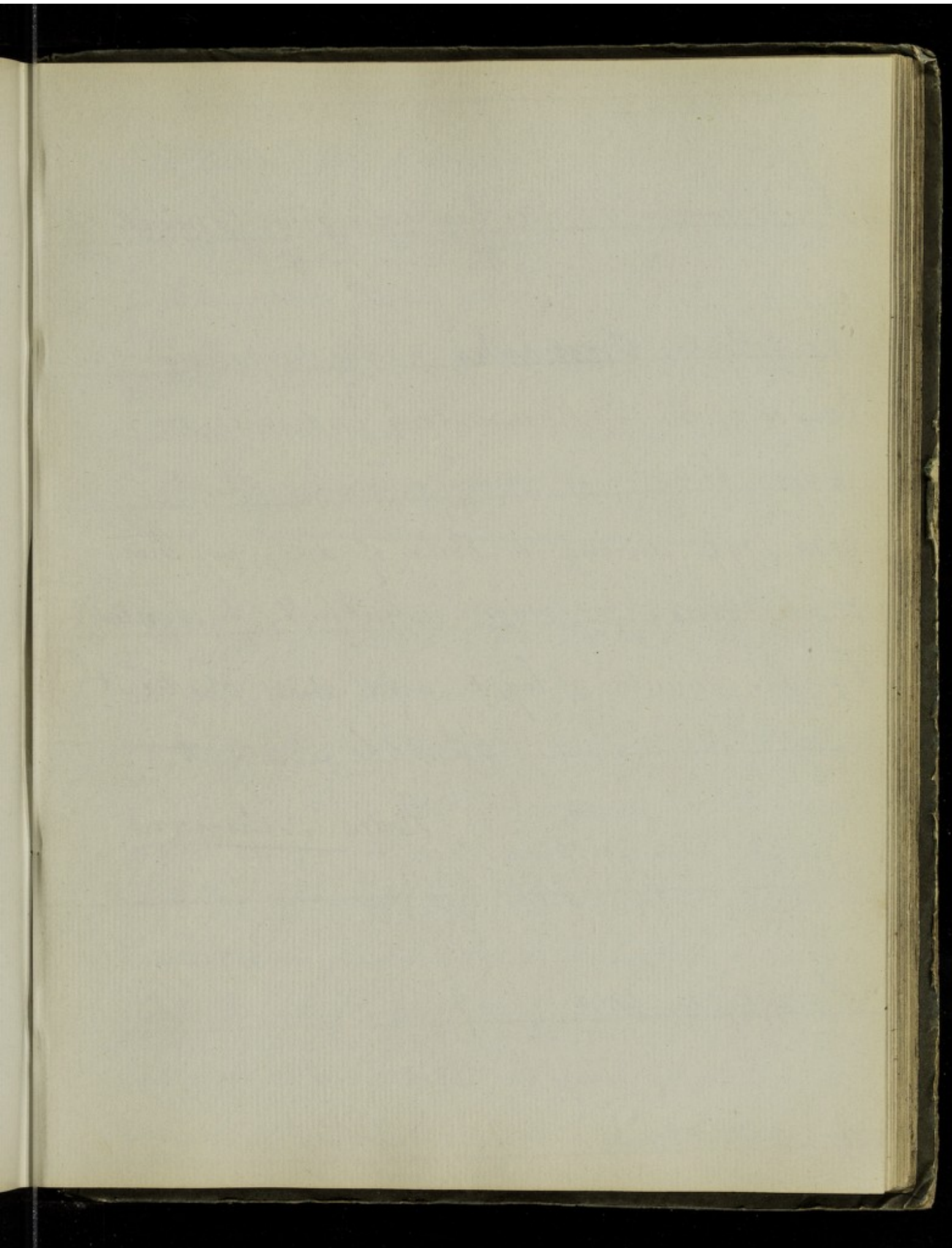
Notwithstanding these remarks fall so short of explaining the Subject they have been wont to treat: yet are they drawn out to a tedious length I did not at first apprehend: & which I trust Your Excellency will do me the Favor to pardon.

Grenada  
April 1808 —

I have the Honor to be  
Sir  
Your most obliged &  
Obedient Servant  
Noder Duhinson

Note continued

" I consider Calomel a valuable purgative in certain circumstances of this Disease. as it can be administered in smaller compass than almost any other medicine of that class: & often with superior efficacy. But when abused under the influence of erroneous Theories, or ill founded expectations; — it is painful to recollect the mischief that has been done by it" — Report on Fever &c. —





To Thomas Heate Esq<sup>r</sup> Surgeon General  
 &c &c &c

The following Remarks, on the producing  
 Causes of the Inflammatory Endemic, or  
 "Yellow Fever" — as observed since the  
 year 1796 during a Tour of duty in the  
 West Indies; are most respectfully presented  
 by his much obliged and most obedient  
 Humble Servant  
Robert Dickinson

1<sup>st</sup> September 1800

11 Cecil Street Strand

On the producing Causes of the  
inflammatory Endemic incidental to  
Europeans on their arrival in the West Indies.

- transcribed from an intended "Essay on the  
"Diseases of the Army in the Leeward Islands  
- as observed since the commencement of  
the Year 1796 -"

The first appearance of this Disease may receive  
its date from the earliest Visit paid by the  
inhabitants of temperate regions to the torrid  
Zone. — But, as it is foreign to the nature  
of this design to enter into minute historical  
detail; we shall only observe, that, when the  
devastation produced by so dreadful a scourge  
took the attention of medical enquiry; an  
attempt to investigate its essential Nature &  
discover its original source, was the natural

\* Vide Hillary Page 146 & seq. 7.<sup>o</sup> Edit

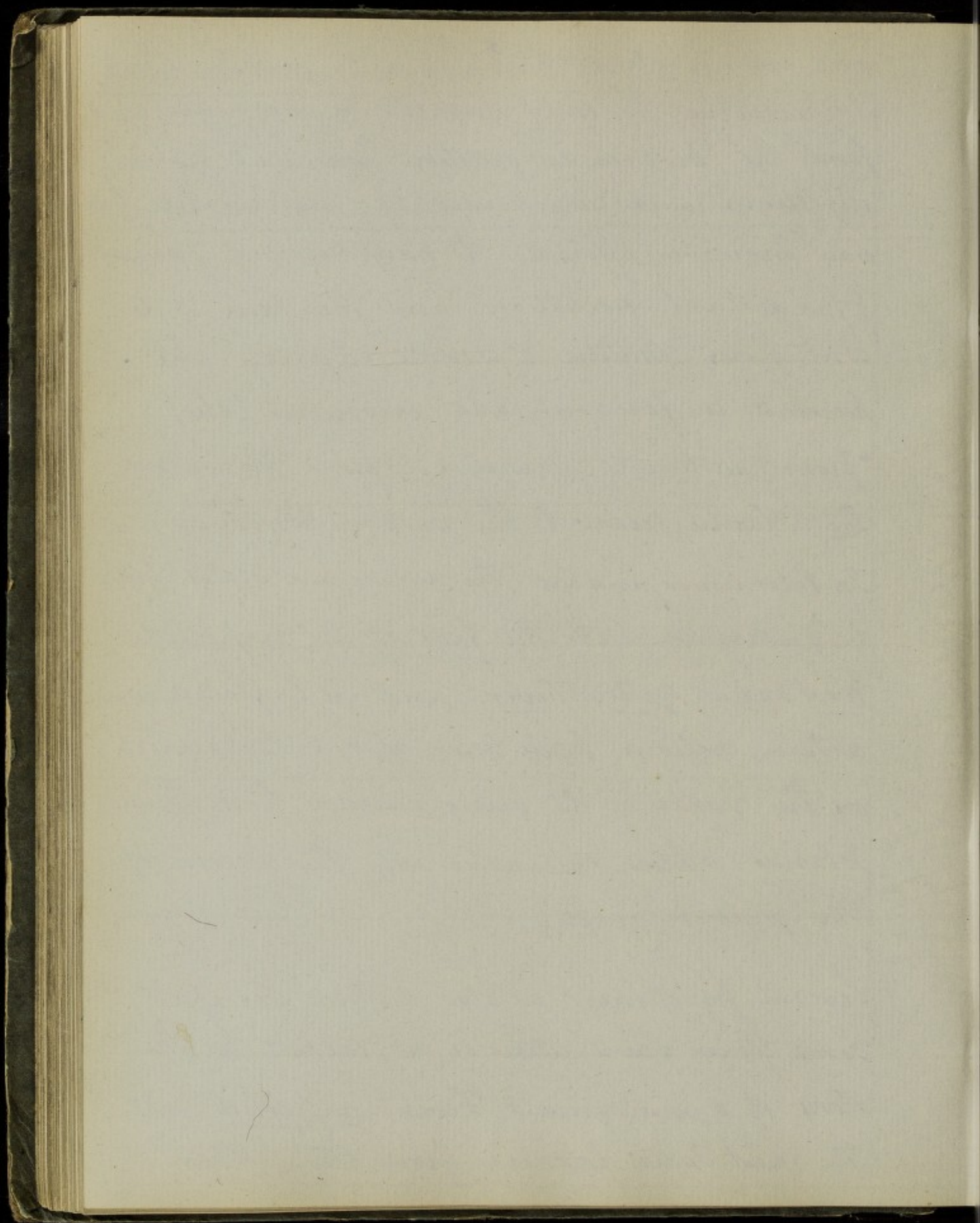
and immediate result.\*

In reviewing the early opinions on this head, we find the Disease in question considered not only infectious and uncommonly malignant: but was moreover affirmed to have been of foreign & far distant derivation: and the Idea of its contagious Nature & remote original was pursued in fanciful and erroneous belief.

"from Palestine to Marsilles, & from thence over the atlantic ocean to the western World" —

In later times indeed the american states have been alarmed with the fear of an imported West India Yellow Fever: and in England even certain notions have been also entertained on the risque of its being carried from these Islands, & thus introduced into the Bosom of the parent Country.

Several practitioners as also authors who after some time gave little or no credit to the story of a malignant Fever, imported into the West India Colonies from the other



hemisphere: were nevertheless, induced to regard the Disease as peculiarly malignant and pestilential — and its origin was referred by the Authors of this opinion to the latent seeds of a febrile contagion — an imaginary Phantom, the creation of their own Brain!

But without better proof than unqualified assertion, or more convincing testimony than mere conjecture, idle fears, or inconclusive analogies: these terrific notions (of imported & pestilential fevers) could not be supposed long to maintain their ground against the more certain test of medical Truth — the cautious result of accurate Observation derived from a diligent and extensive Experience.

When therefore, it was demonstrated by the arrival of Europeans at different periods, in different parts of the West Indies; that a peculiar Disease was indigenous to hot climates, & only incidental to strangers on their first coming to the Country: while Exemption

+ Vide Blane on Diseases of Seamen Page 80-165-268-

+ Dr. Wright however denominates the disease  
"Typhus icteroides" and observes that it appeared  
to be the jail fever exalted to a great degree of  
malignity —

was the happy lot of those born in or inured to the high temperature of the torrid Zone.

— When moreover it became pretty well ascertained that intense degrees of heat, rather tend to dissipate than give action to the Principle of typhus contagion<sup>+</sup>

— still more especially, when it was perceived that a constant and intimate connection with those laboring under the Disease, in all its stages & degrees of malignity, had never afforded to the most careful observer the slightest proof of its infectious disposition. The opinion as well of contagious as of imported yellow Fever, lost much of its former authority and weight.<sup>+</sup>

Then was introduced under the auspices of many celebrated names another Idea on the same subject. — which, although perfectly correct within certain limits we shall hereafter endeavour to define: appears to the author equally erroneous with the almost obsolete



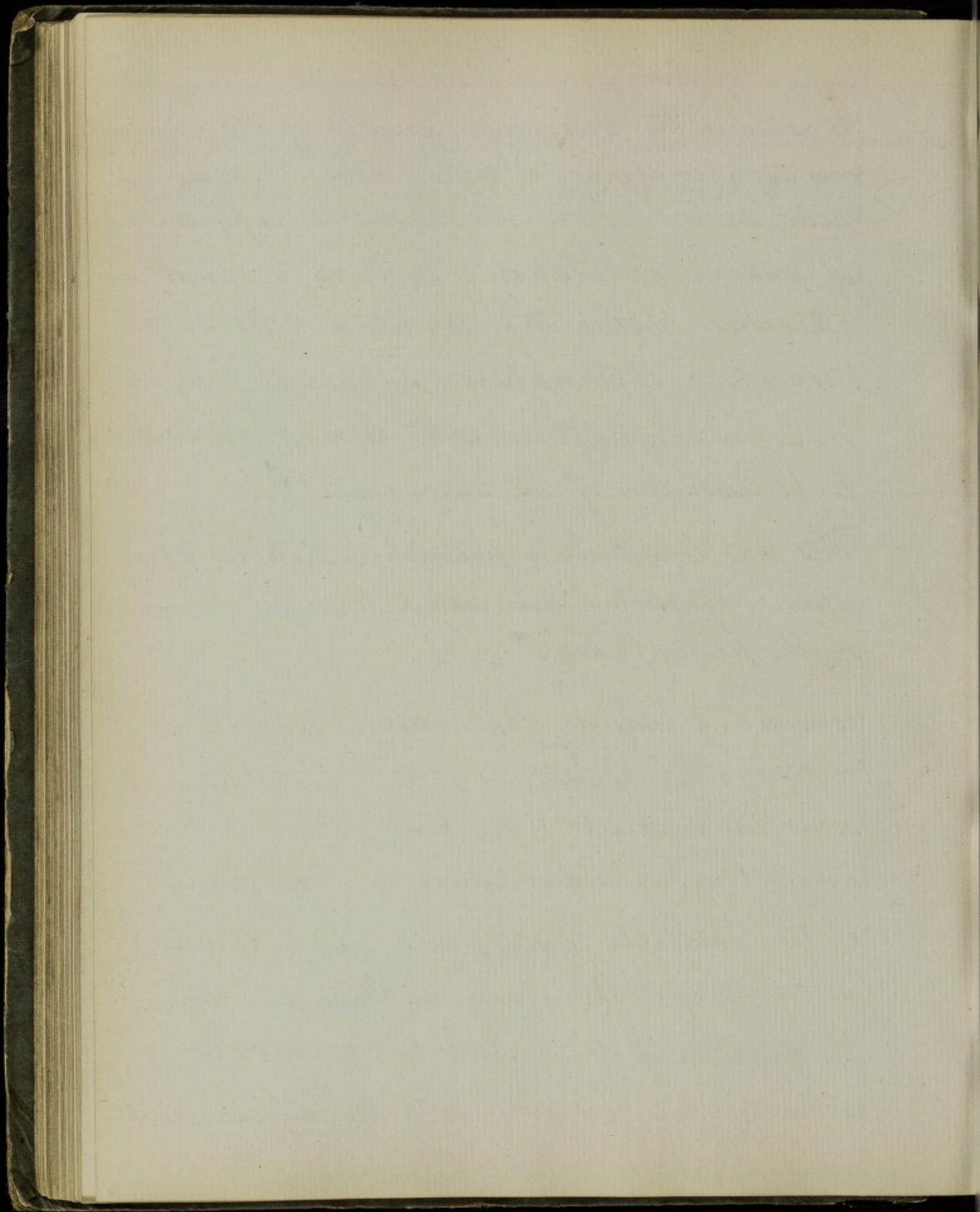
+ Vide the writings on this subject of Lind - Clarke Dominique,  
Hunter Jamaica - M: Lean Saint Dominge. &c &c

\* See Dr. Richardson's "outlines of the History & cure of  
fever - endemic & contagious" - P. 104. &c

notion of contagion, when brought forward to explain the occasional causes of the inflammatory endemic or "yellow Fever" which is here derived from the baneful influence of marsh exhalation: or from a moist, or otherwise unhealthy condition of the surrounding Atmosphere; supposed (by some in conjunction with lunar influence) to be productive of the same effect. <sup>+</sup>

This has long been a prevailing notion: & forms upon ingenious ground a learned opinion of the present Day. <sup>\*</sup>

Considering indeed that marsh exhalation & certain other conditions of the atmosphere do occur an evident & fruitful source of Fevers under this, as indeed in every other climate of the habitable world; and are particularly destructive of the army in these islands: the mention of it cannot be permitted without some enquiry into the difference which appears to subsist between the



remittents of such situations and seasons as have been just alluded to; and the endemic inflammatory affection — the subject of these Pages —

It is therefore with every deference to superior Judgment, that the Author ventures to submit an opinion — founded, he is inclined to think on accurate observation. — That the inflammatory endemic or "Yellow Fever", differs from fever strictly so called in several respects which merit distinction.

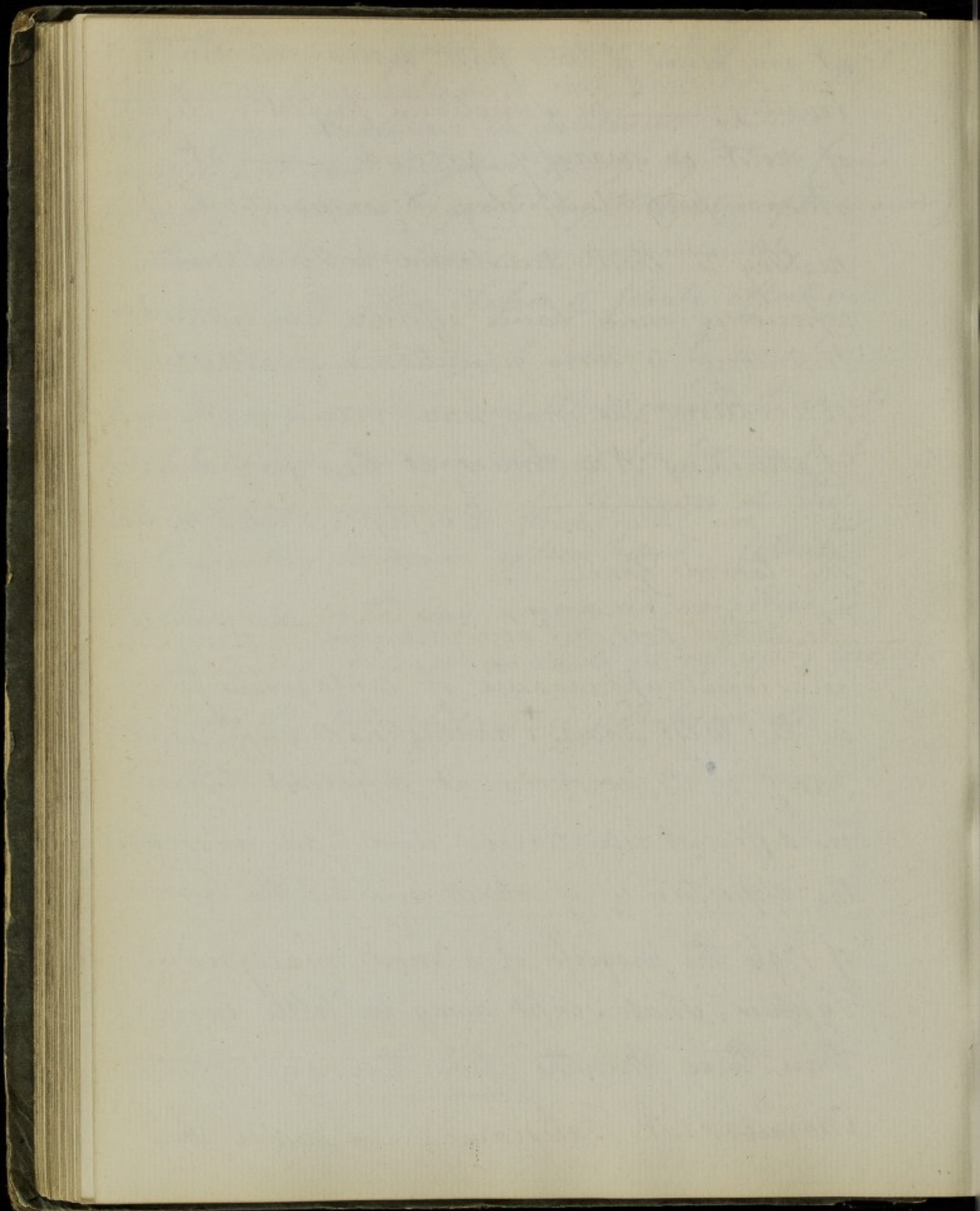
— That it is neither of foreign origin, nor the offspring of contagion — nor marsh exhalation. — and its undoubted prevalence in seasons and situations, & under circumstances demonstrably unconnected with, and altogether free from the influence of those noxious powers, will tend, he presumes to afford some confirmation of the justness of this remark.

— for that the Disease has committed its wonted ravages on the constitutions of strangers, at

+ Dr Chisolme has given us an account of a "malignant  
pestilential fever, introduced into Grenada, by the  
Hanky from Boullarw: The treatment however,  
adopted with such singular success by Dr C. (and  
formerly, I believe suggested by Dr Hunter of Jamaica)  
— should not have been so indiscriminately  
extended to the other classes of febrile affection.  
The mercurial practice — I believe to have been  
productive of much harm, when carried to excess  
(as I have seen) in some cases of low fever: & if  
depended upon exclusively for the cure of the  
inflammatory Endemic "yellow Fever" — (which  
Dr Chisolme, by the way, considered unallied to  
the particular disease on which he expressly wrote)  
— I fear, the test of experience will prove its  
insufficiency.

at any period of their first arrival in the  
Country; — in situations perfectly clear  
of moist or swampy ground — at  
seasons particularly dry & (comparatively)  
healthy to those accustomed to the climate;  
experience must have afforded abundant  
testimony to every practitioner of attentive  
observation, who may have been in the habit  
of attending New-comers, at their first arrival  
even on the most healthy Positions under  
the torrid Zone —

The author does not here presume to deny the  
occasional appearance of contagious fever  
in the West Indies: having had sufficient  
proof of its existence at different times  
in different situations: and had, moreover  
the opportunity of observing in the Summer  
of 1796 the progress of a most malignant  
Typhus, which swept away in little more  
than three months two Thousand of the  
Charaibes at Baliseau — a small, dry

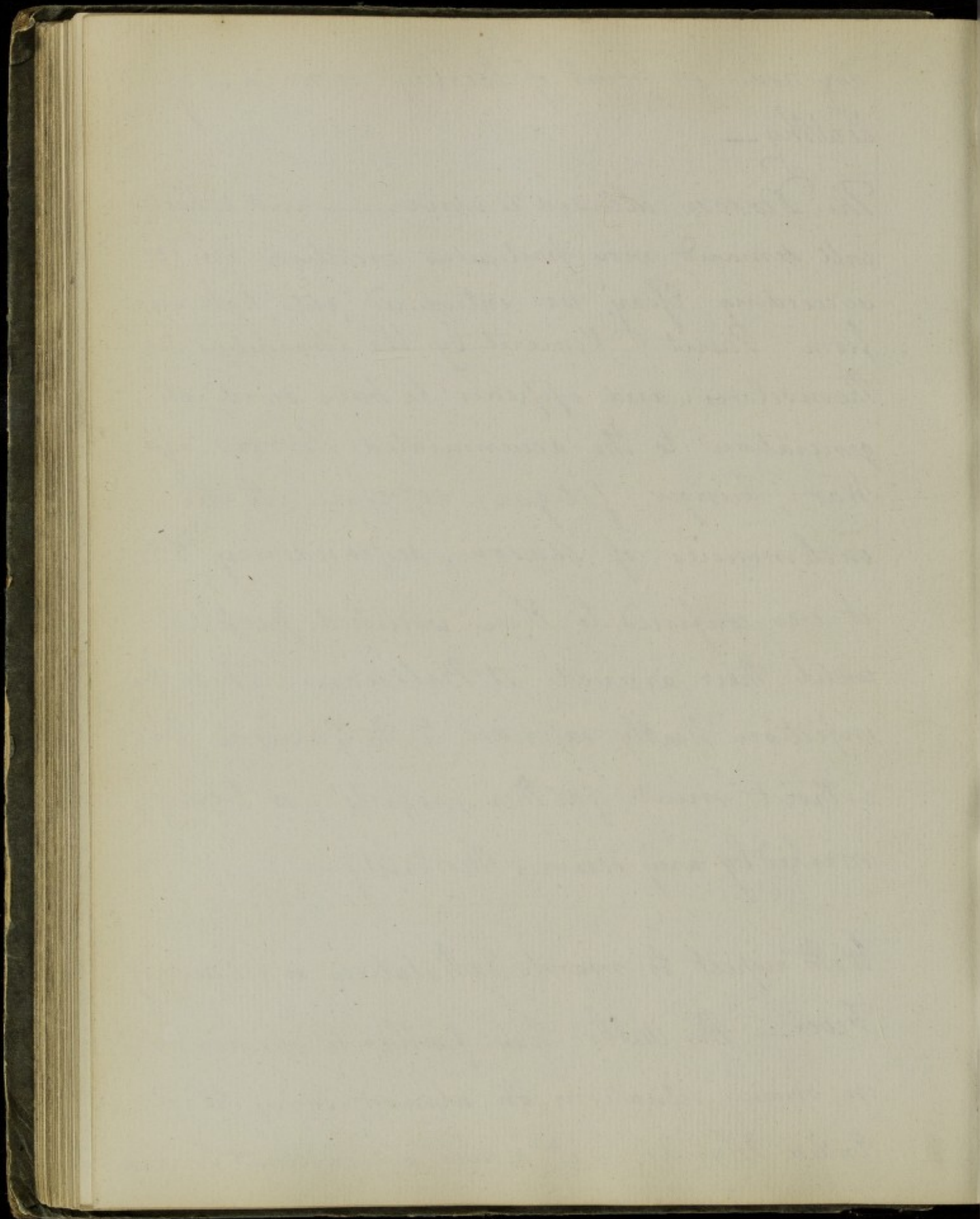


dry rock in point of locality remarkably  
healthy—

The Disease alluded to above: — and which  
will demand more particular mention in a  
succeeding Essay, was introduced into Baliseau  
from Point à Voie by the Charaibes  
themselves; and appears to have owed its  
generation to the accumulated Horrors of  
War; hunger, fatigue, exposure to the  
inclemencies of season, despondency &c  
it was confined to these wretched people  
until their arrival at Baliseau: when the  
infection partly extended to the Garrison, but  
without much farther progress — or being  
marked by any serious Mortality—

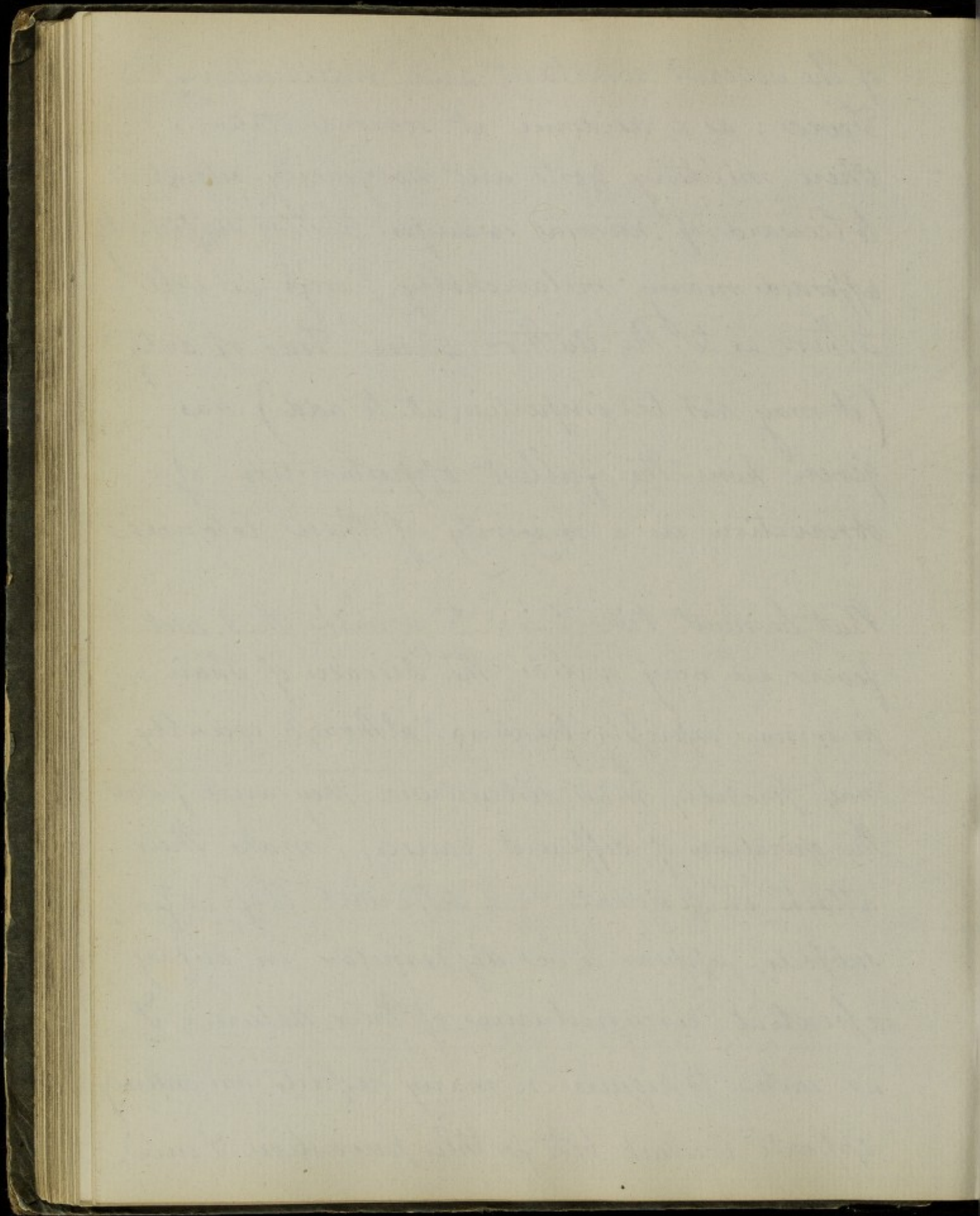
With respect to marsh Exhalation as a cause of  
Fever— The Author has farther to observe, that  
in many situations on almost every West  
India Island, — it occurs an evident Source



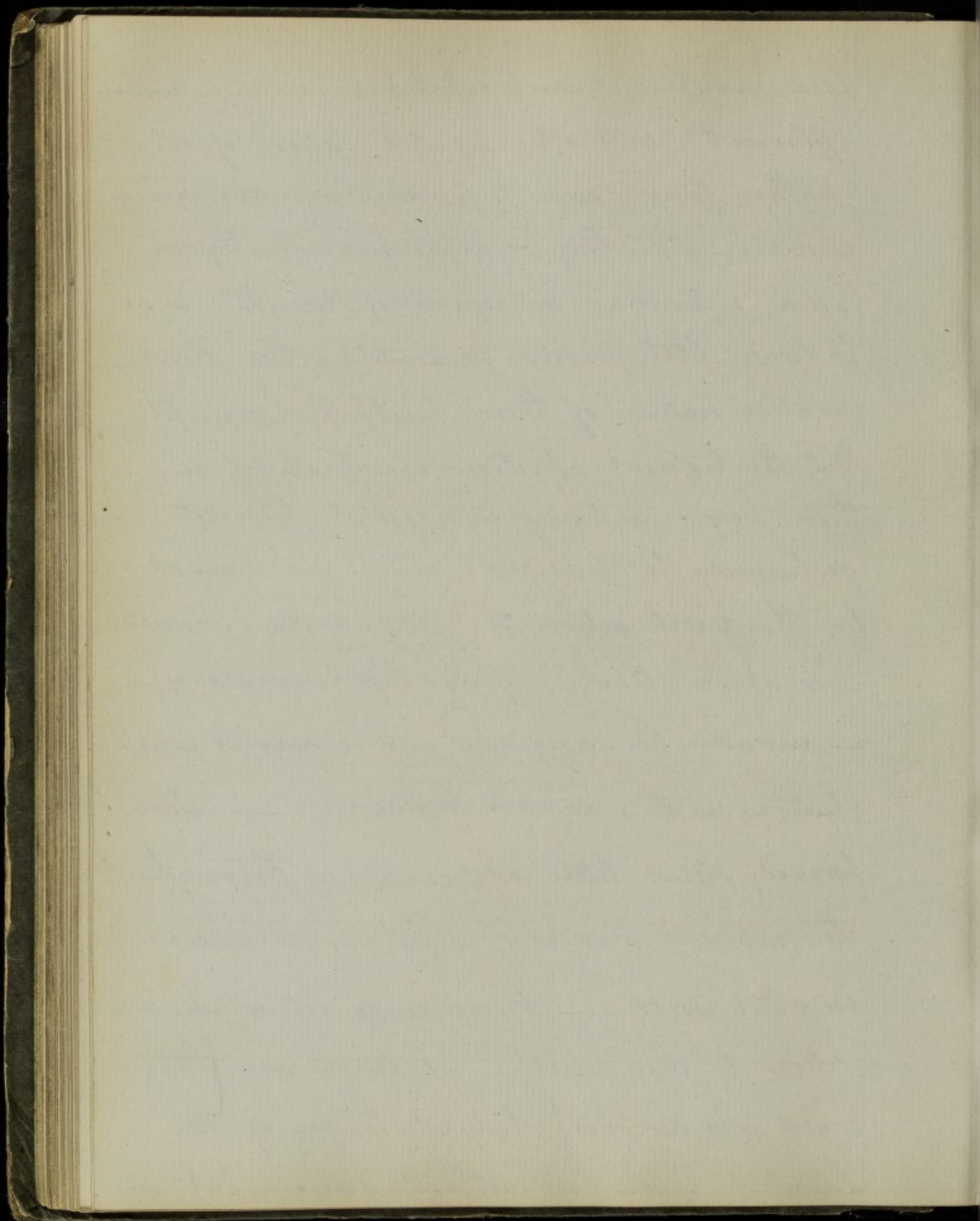


of the severest remittent and intermitting Fevers; as a residence at several stations where military posts are necessarily situated to leeward of noisome swamps: has too sufficiently afforded many melancholly proofs as well to others as to the Author: whose Tour of duty (it may not be impertinent to add) has given him the fullest opportunities of observation in a majority of these Colonies.

But he must take leave to remark that, such fevers are very unlike the Disease of which he is now expressly treating: although equally, may, probably more destructive. They arise from the operation of different Causes: make their attack, in general on a different Class of subjects: appear to be dissimilar in every essential circumstance of their Nature: & as such - to require in many respects, an entirely opposite Conduct both for their prevention & cure.

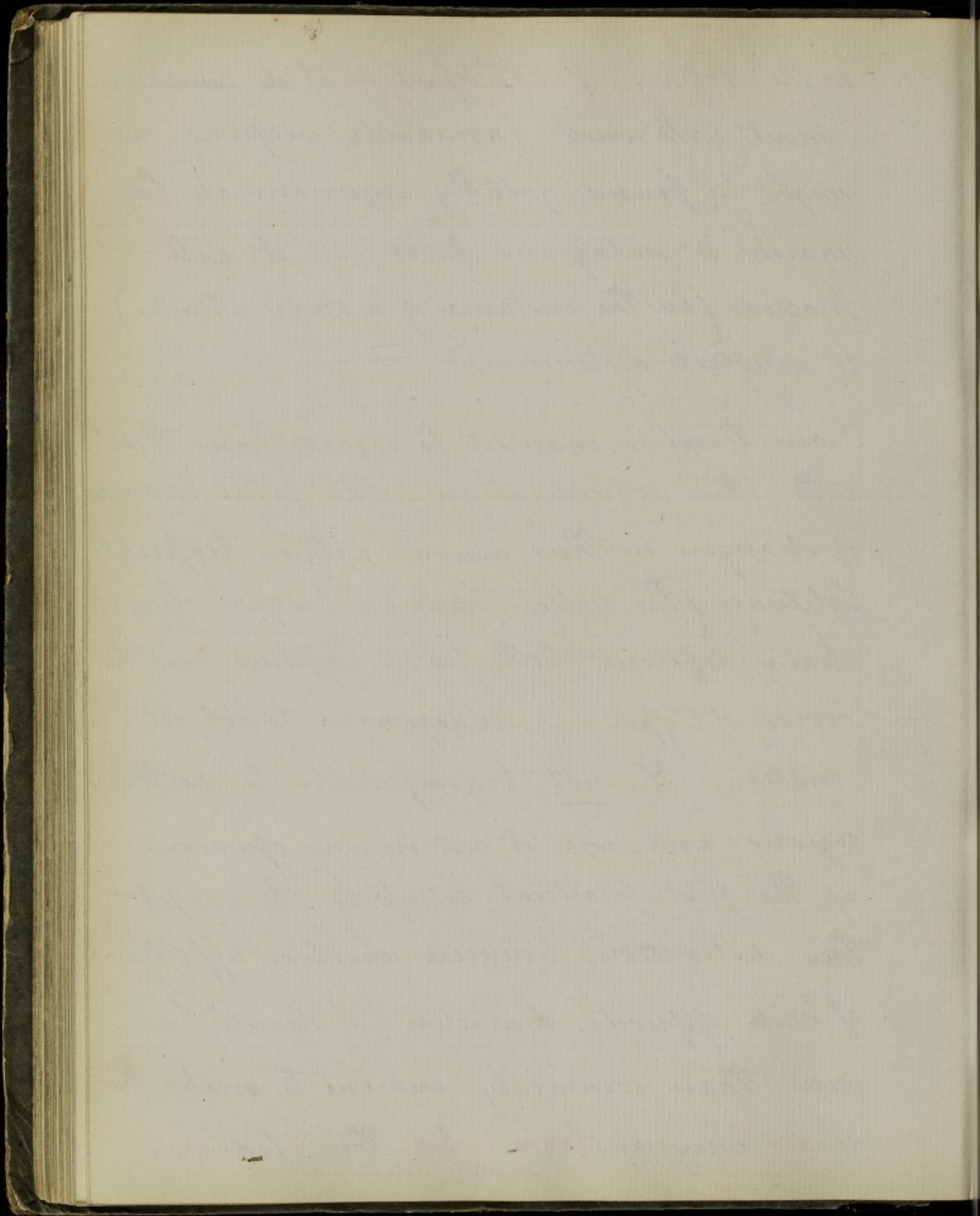


Cold, moisture, marsh exhalation, vitiated human  
effluvia & with other reputed causes of idio-  
-pathic fever: seem to produce under every  
climate - when they occasion fever strictly so  
called, a peculiar depression of strength: so as  
to leave little room for doubting the directly  
sedative nature of their hurtful principle.  
But the tropical affection we speak of in  
these pages as being incidental, almost  
exclusively, to strangers: — is caused  
by the direct action of powerful stimuli;  
— is, at the attack highly inflammatory —  
— invades the sanguine and vigorous consti-  
-tution with a decided preference: — when  
formed, shews little appearance throughout  
its natural course of salutary re-action:  
in other words: — it evinces no active dispo-  
-sition to cure itself; is in no wise, (that I  
could ever discover) obedient to any of the  
Laws of Crises or critical days: but on



on the contrary, if not assailed at its commence-  
ment with such formidable weapons as  
might be found fatally injurious in low  
marsh or contagious fever: — it will  
proceed (in the instance of a severe attack)  
to inevitable destruction —

I am therefore induced to regard, from these  
with other considerations — the fatal Endemic  
of strangers on their arrival within tropical  
latitudes (the "yellow fever") a Disease essen-  
tially different, both from Typhus and the  
Fevers of Tyber: — indigenous to hot cli-  
mates — & not transferrible to northern  
regions: and, were it not in my opinion  
of the first practical necessity to adopt  
this distinction between morbid affections  
of such opposite characters: I should be  
more than commonly anxious to make the  
reader every apology for the tedious

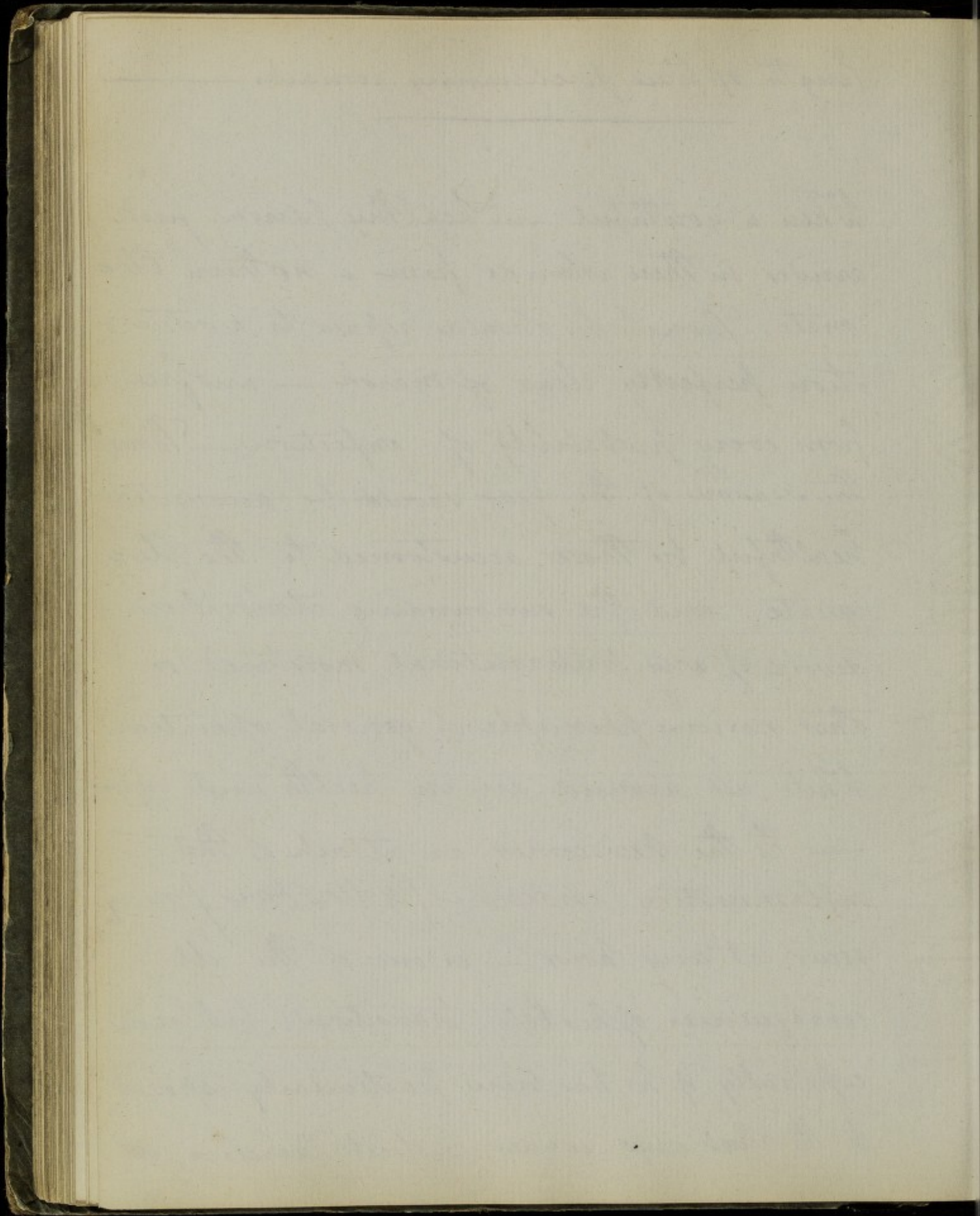


Length of these preliminary remarks —

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When a youthful and healthy person first arrives in these islands from a northern Climate; Though he should repair to a situation perfectly clear of marsh — and free from every probability of infection. — Though the season of the year should be accounted healthy by those accustomed to the Climate; and the surrounding atmosphere devoid of any preternatural moisture — or other noxious principle of general operation. While all around are in health and vigour — to the new-comer, an attack of the inflammatory endemic ("yellow fever") may occur, at any hour — as one of the ill consequences of his late transition; but more especially if he has been particularly exposed to the Sun's rays under violent Exercises, or

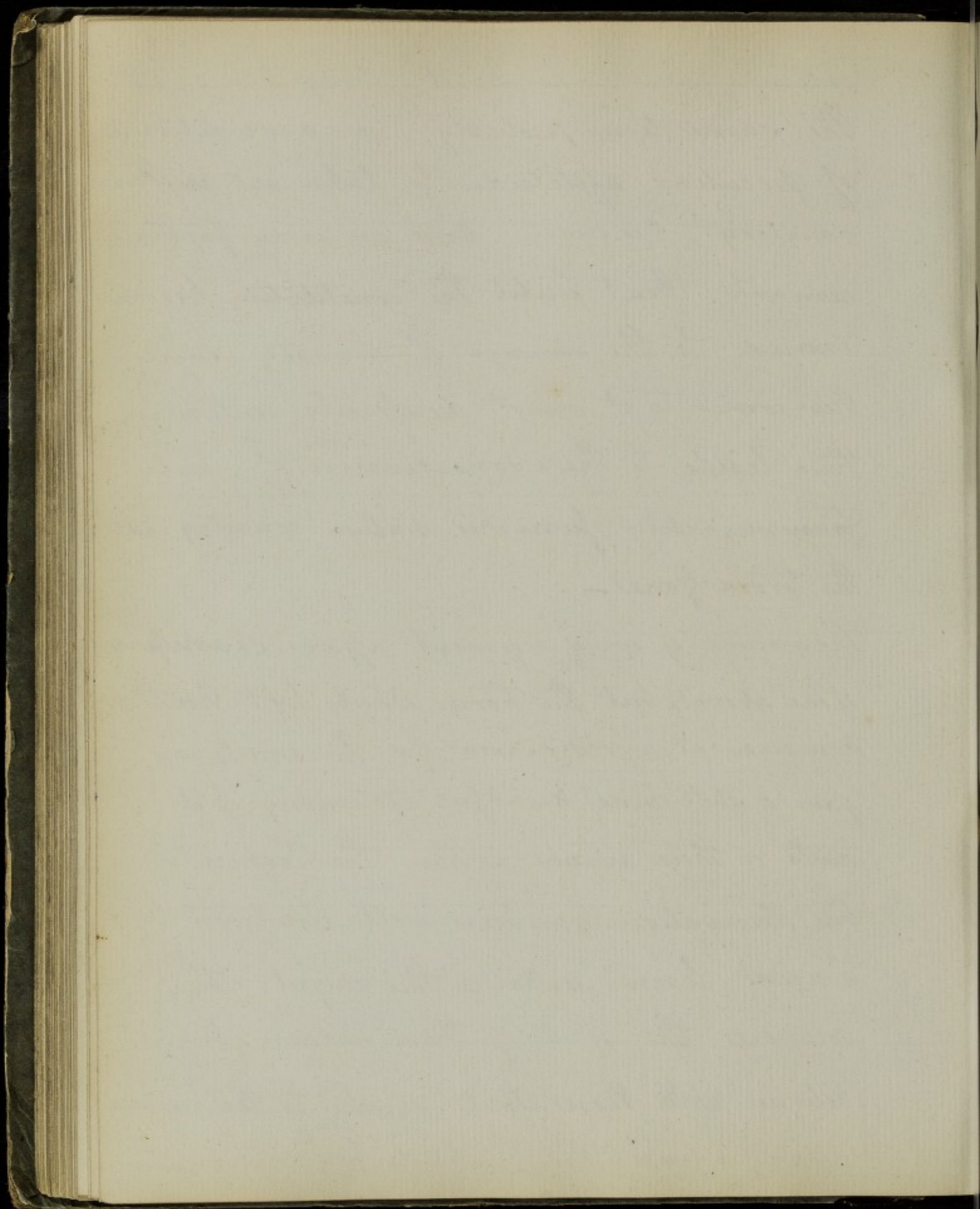




intemperance — his habit of body being, at the same time probably, — in a condition of peculiar aptitude to take on inflammatory Disease. And we may farther remark, that until the constitution becomes inured to the change of climate: every New-comer to it, must necessarily continue thus liable to these consequences of such transmigration from his native country into the torrid Zone —

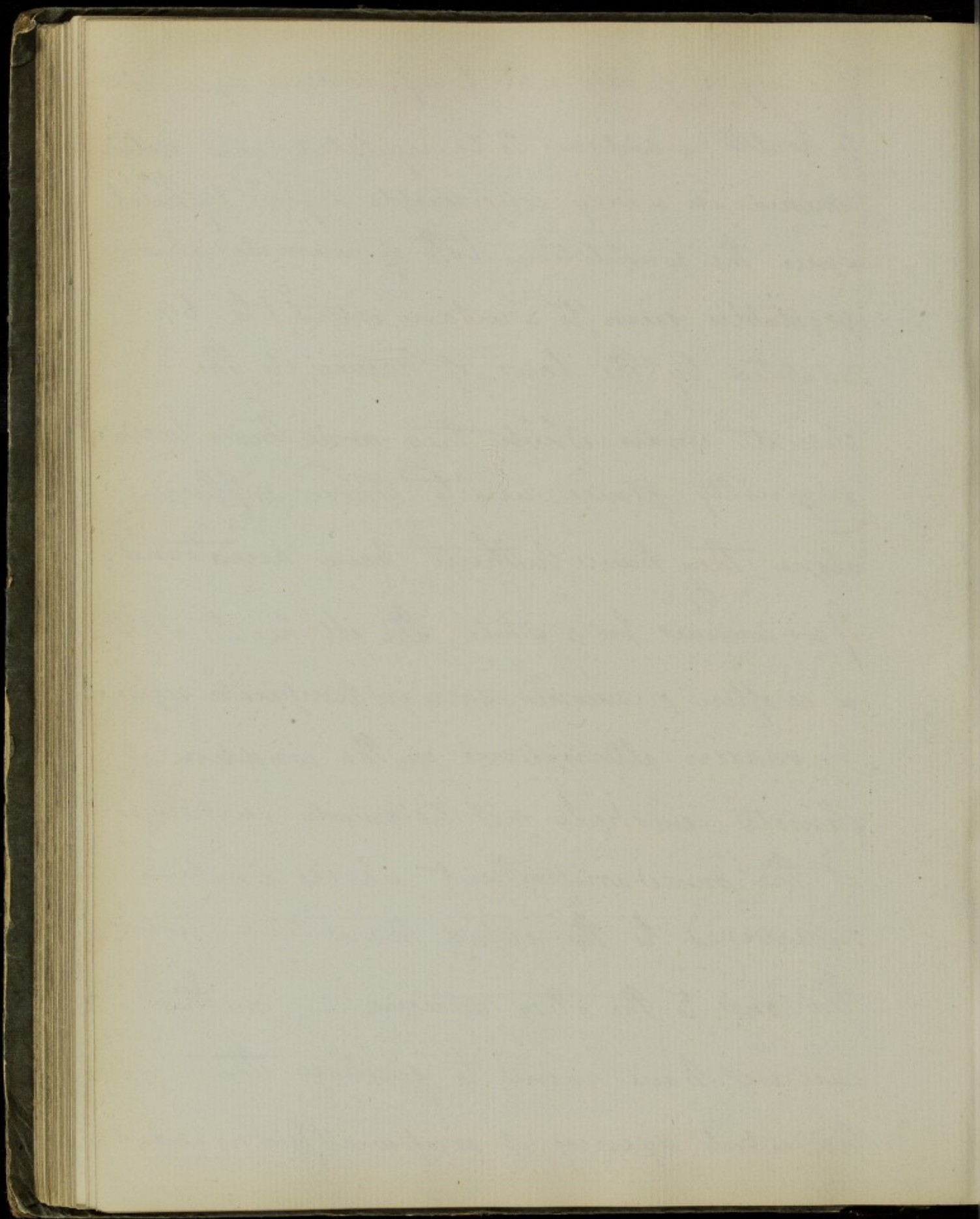
The arrival of wiry regiment affords Example of the above, but the Forces which left North America at a cold season for the West Indies, gave a still more dreadful testimony of its truth on their arrival within the Tropics —

This Observation has been well illustrated by a recent learned writer on this subject, who compares the effects of these sudden transitions with those which succeed to the immersion of a frost-bitten limb in hot water —



The degree of external temperature agreeable to health;— appears to be regulated and determined in a very considerable degree by habit: since the constitutions both of animals and vegetables seem (to a certain extent) to be adapted by the laws of nature to the climate under which they may have been originally placed: and to whose influence alone they have hitherto been accustomed.

If we consider for a while the ill health which is so often occasioned, even in temperate regions by sudden alternations in the condition of climate: we shall not be much surprized at the more important shocks which supervene to the rapid transition from the one to the other extreme. — neither can we have room to question the powerful agency of exquisite permanent



heat: When, from time to time we have had so many opportunities of observing in others and moreover of experiencing in ourselves the effects of so general, direct, & violent a stimulus, which, on application to the yet unacclimated constitution of the stranger — even in as moderate a degree as may be supposed; rarely fails in exciting some degree of inflammatory tumult: as every new comer who exposes himself to its influence will bear evidence beyond dispute — nor need we remind practitioners who deny the power of extreme heat (as experienced by strangers in tropical latitudes) in producing the "Yellow Fever", of the too frequent occurrence of idiopathic phrenzy & the affection so aptly termed Coup de Soleil, which sometimes instantaneously follow an exposure of the head

"The heat of the Sun is very often fatal with us, as well as in other countries - I have seen Labourers, returning from the Plough, fall down and die" -

"I have seen similar effects in the electorate of Hanover" -

"In France, a child was seen to lose its memory, during the summer heats" -

"Litsingh says that at Curassaw, Europeans on their arrival, are commonly attacked with ardent Fever" - Zimmermann on Experience in Physic - See Note at the end of the Manuscript transcribed from the London prints lately -

to the Sun's rays. <sup>+</sup>

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1. Exposure to the intense & permanent heat of the climate while unaccustomed to its influence —

2. Intemperance of every kind.

3. Violent Exercises,

These affecting in a greater or less degree, constitutions prone to inflammatory Disease: — sometimes aided in their separate or united Force by auxiliaries not altogether so perceptible or obvious in their operation: are regarded by the Author fully adequate to the production of the inflammatory Emaemia ("Yellow Fever") under every degree: in confirmation of which, abundant testimony might be



+ A moderate increase of external temperature induces perspiration, and in those who readily part with their heat or who perspire freely: no other effect will supervene: except in some instances a degree of Lassitude. When however the external heat is farther raised & kept up, as in the instance of those who expose themselves to the Sun in the West Indies, (to a degree of heat generally approaching to  $130^{\circ}$  -) this inordinate stimulus produces painful sensation: — appears to excite the Capillaries into unusual action: — inducing at length a constriction of the Vessels on the surface.

— The perspiratory discharge is in consequence suppressed: while the heat in the system being now retained; soon induces an increased action of the vascular system. Hence appears to arise the symptoms of the first stage of the Disease. When however the living principle becomes exhausted by continued over exertion, relaxation seems to succeed the previous violent constriction. But this relaxation does not appear to be the salutary criterion of the solution of febrile action, or critical in any shape: but is merely a symptom of the debility which follows over exertion: And its farther consequence is not a healthful perspiration with salutary

brought forward here; were it within the limits of these cursory observations to adduce particular examples of its having occurred in many instances within the Author's knowledge the immediate and evident consequence of such exposure as mentioned above; under circumstances in which, neither infection, nor marsh exhalation, nor any peculiar condition of the Atmosphere, otherwise than from heat, could in the least be suspected -<sup>+</sup>

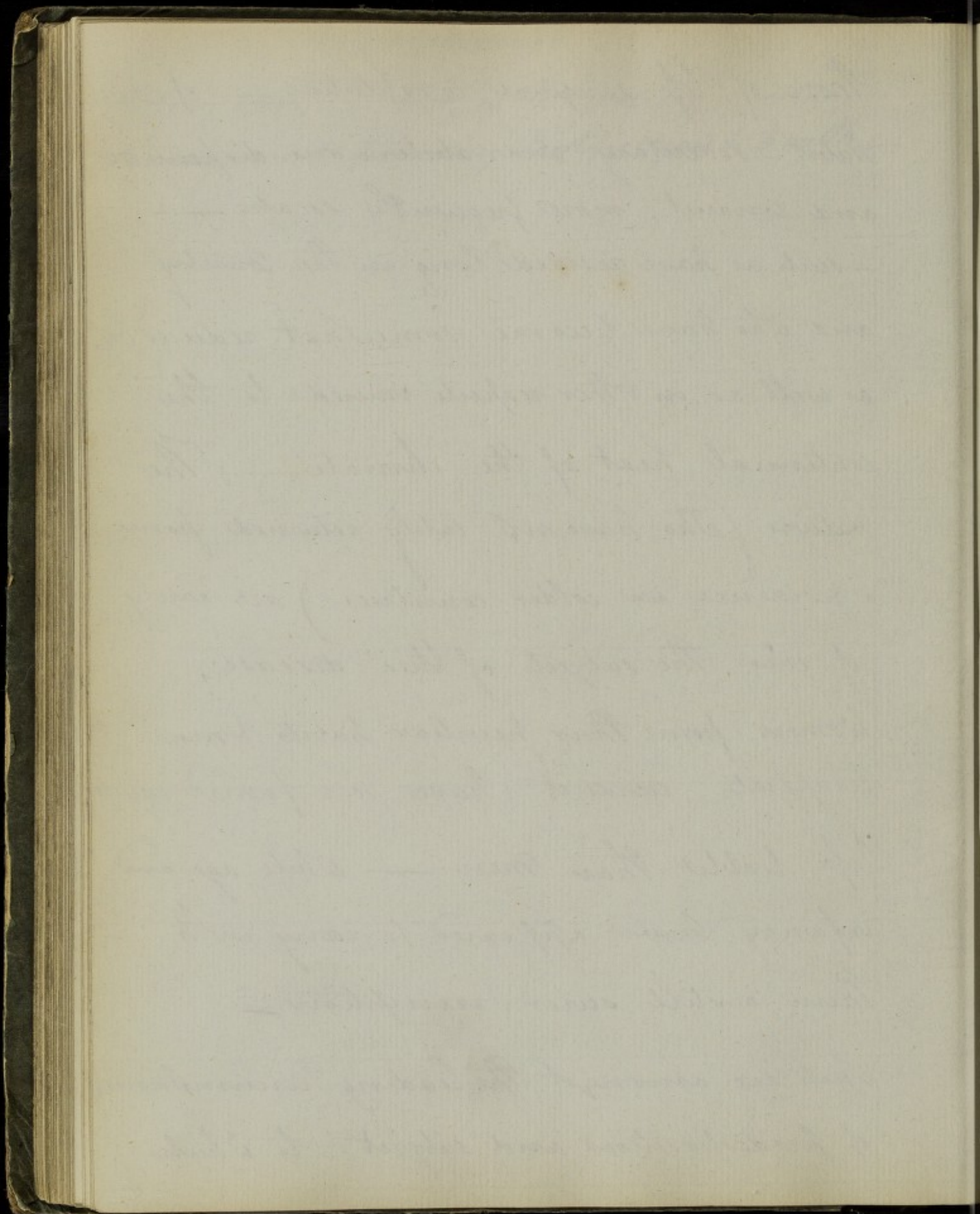
An inflammatory Diathesis occurs as principal pre-disponent Cause of this Disease: of which we have additional testimony in the contemplation of its favorite Subjects. These have ever been found amongst the full, plethoric, youthful & robust; —

Note continued

salutary Crisis: — but, on the contrary, a cold,  
clammy sweat preceding Mortification & Death —

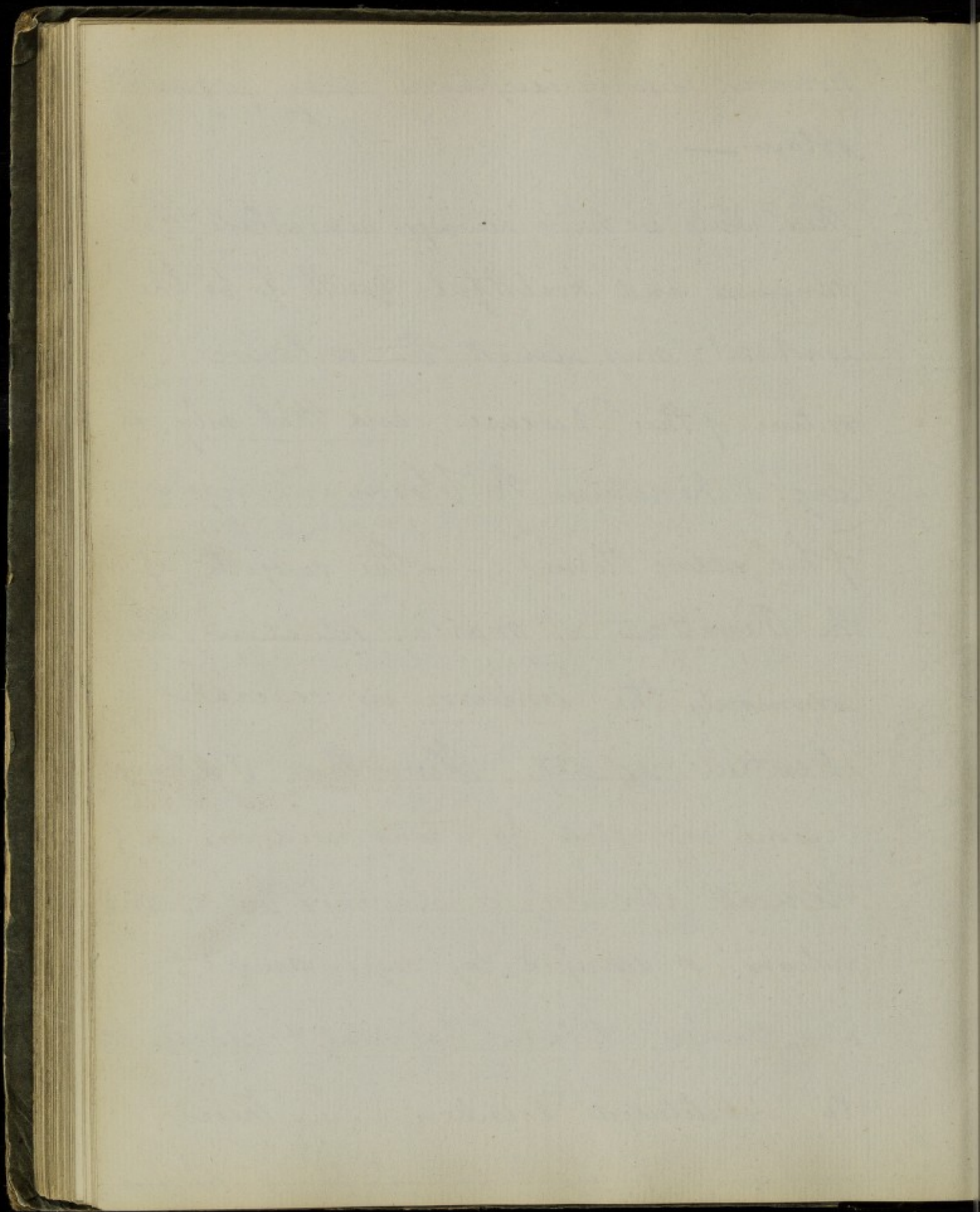
Those of less sanguine constitution — of spare habit — sedentary and abstemious disposition and conduct, more frequently escape — such as have resided long in the country, and who have become somewhat reduced by, as well as, in other respects inured to the continual heat of the climate — The natives (who have not lately returned from a residence in colder countries) are rarely, if ever the subjects of this disease; Women, from their peculiar habits & more temperate conduct, have been found much less liable than men: — while age and infancy have appeared to carry with them a still surer exemption —

Such are amongst the leading circumstances, of predisposition and subject: to which



however many exceptions may frequently obtain —

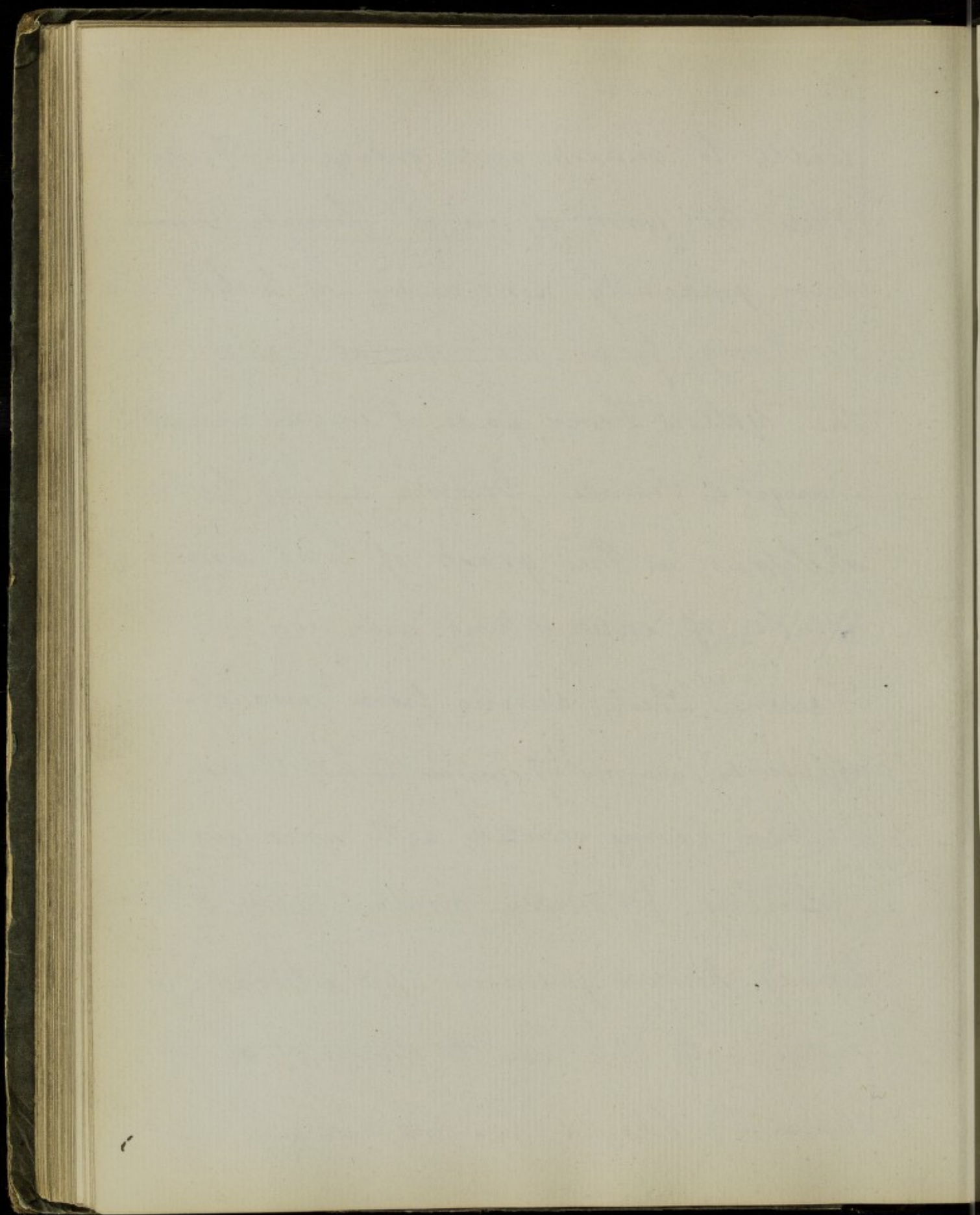
Thus, while we have always remarked the sanguine and healthful youth to be the constant, nay almost the exclusive victim of this Disease: and that only, so long as he retains the bloom and vigor of his native clime: — the subjects of the Remittents of marshy situations, are commonly the converse in several essential respects. Hence those who have become enervated by a long residence in tropical climates; or weakened by inactivity, or depressed by despondency & also women, children, habitual & consequently debilitated Drinkers. — These are principal in that class of subjects



Whom we have perceived to be the most  
liable to malarial and contagious Fever  
When the first effects of climate have  
been gradually done away by Habit - Who,  
escaping from the mortal Terrors of  
the "Yellow Fever", and at length inured to  
change of climate: become almost living  
skeletons in the grasp of long continued  
attacks of intermitting and remittent  
Fever: which, arising from malarial  
effluvia are not peculiar to hot Regions.

— These having resisted with unconquerable  
obstinacy, for many months every other  
remedy however judicious and esteemed; very  
surprisingly give way to change of air or  
climate. Should however recourse not





not be had to this sovereign means of Cure:  
we can scarcely form any calculation of  
the time they may continue their insi-  
duous and exhausting encroachment  
on the constitution: while, on the other  
hand, the progress of the inflammatory  
endemic of strangers in the West Indies  
("The Yellow Fever") is, as it were a rapid  
combustion, whose fatal course is frequently  
finished within a few hours, unless it  
be extinguished in its Birth -

The Effects of marsh exhalation are severely  
experienced both by the native inhabitants  
and strangers: and the residence which  
inures the latter to change of climate, &

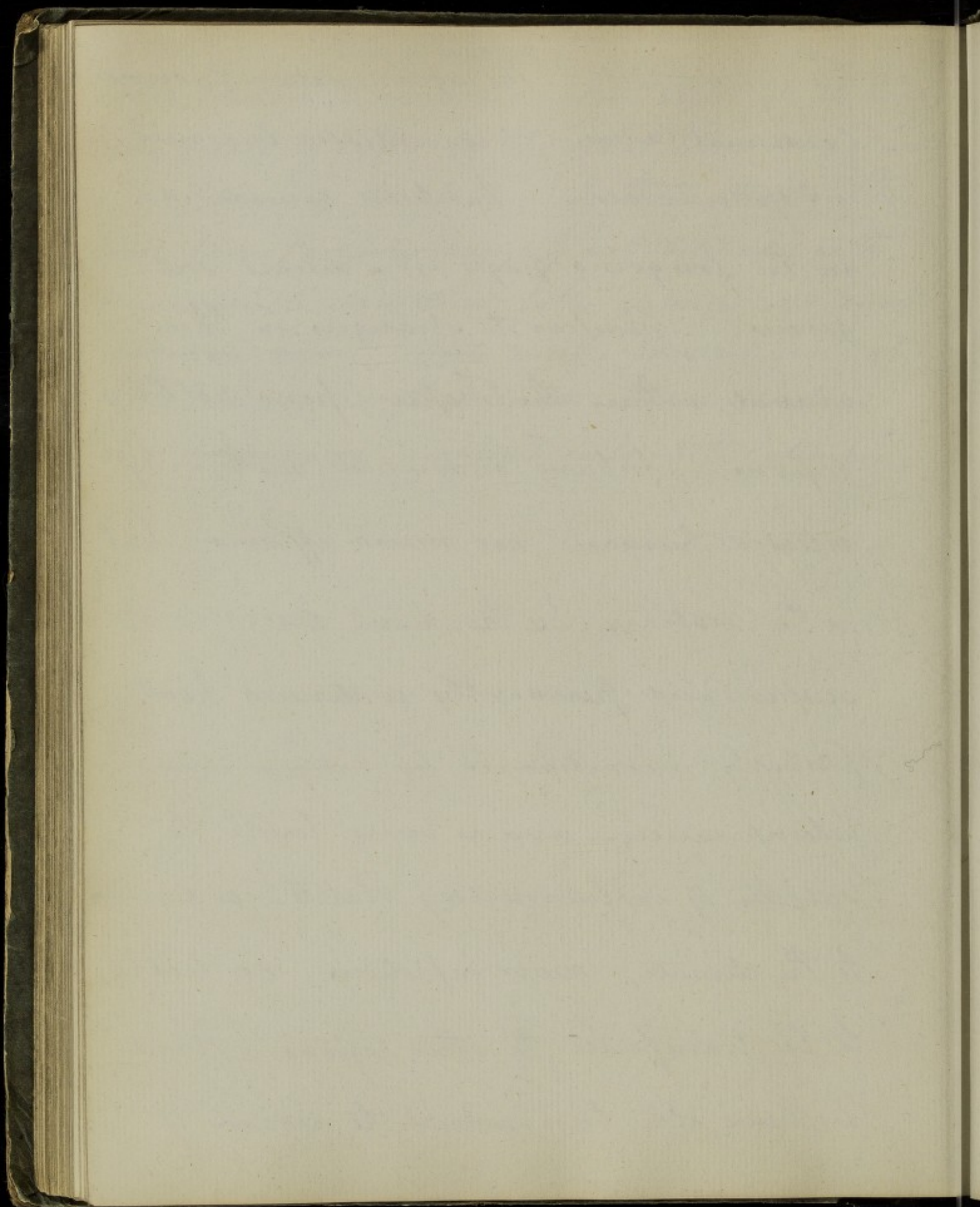
+ I have glanced, in some pages of this Manuscript, at a Report which I made in 1801. to the Head of the medical Department in the West Indies - on a fever which attacked the Royals during the dry & sultry months of July & August soon after their arrival - in this report I find it is noticed that " During the whole period of this sickness - the native inhabitants - The Creoles from other islands - also Negroes - the Men who composed the detachment of the black regiment: and such Europeans as were inured to the Climate, - preserved their wonted health - but New comers to the Country, not belonging to the army, were equally attacked with the soldiery, amongst whom there were but few instances of exemption. At the conclusion of this Report I find it remarked - that " no sooner had this (inflammatory) Disease quitted us at Head Quarters in October: than the heavy rains which set in during the latter end of November were accompanied by many & severe attacks of remittent Fever in a part of the Island which had hitherto nearly escaped the first fiery ordeal - probably from its much

and thence secures them, in great measure  
from an attack of the inflammatory  
endemic — affords them (as before  
remarked) no protection from the Fevers  
caused by vitiated human or marsh  
Effluvia — And while the ardent or "yellow  
Fever", may possibly attack a New comer  
in any situation, under this intern-  
perate region; the marsh Fever is not  
only confined to certain Islands; but  
is restricted in these to particular spots  
of ground — generally shewing them-  
selves only at seasons which favor the  
production of their exciting cause — into  
whose essential Nature or mode of operation  
it is not, at present my intention to enquire.<sup>+</sup>

Note continued

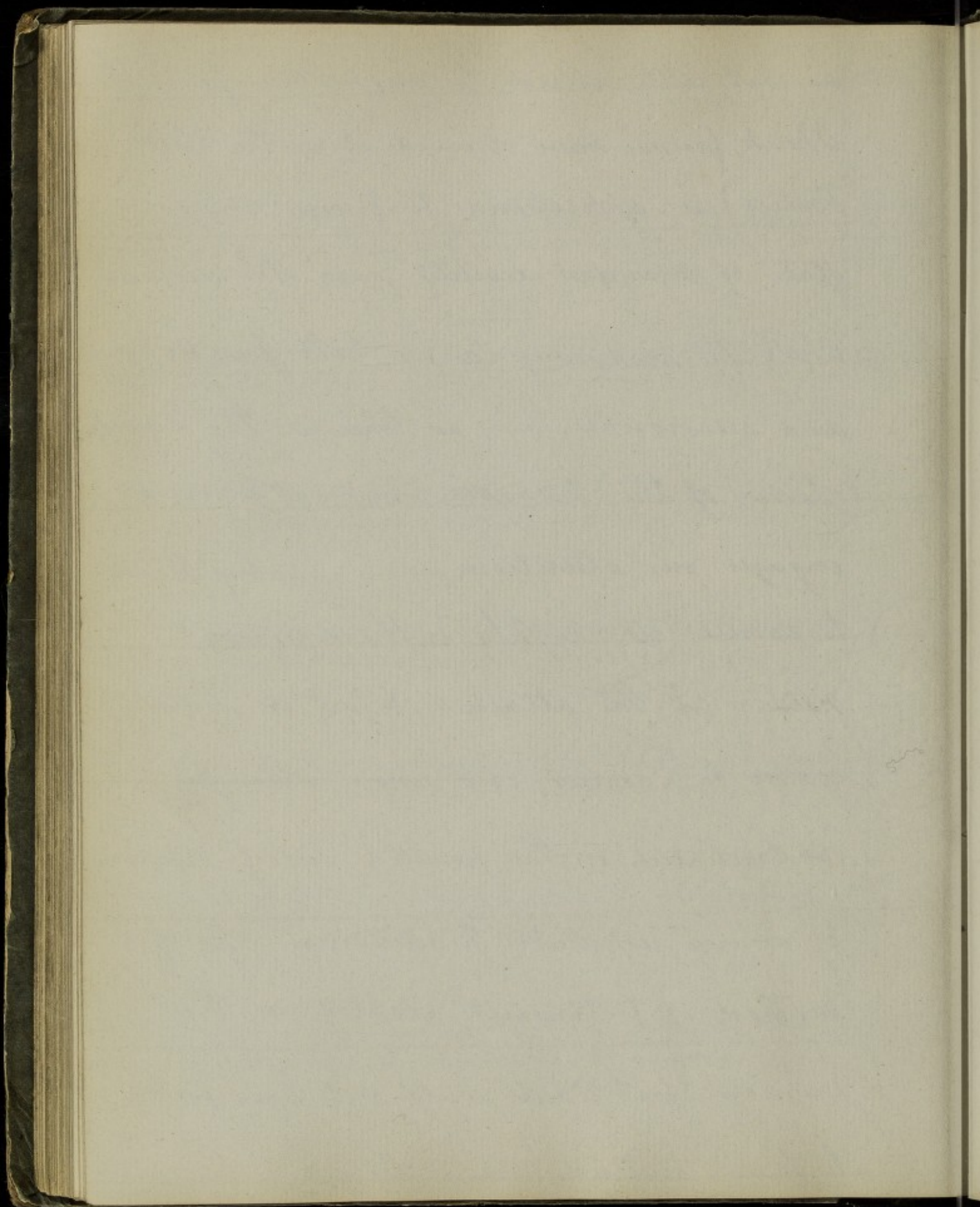
"Cooler situation to windward - But while in its turn now began to suffer by the exhalations derived from a neighbouring Marsh - In these attacks, the tonic plan (aided by change of air & situation) with very moderate evacuations fully answered our most sanguine hopes - While in the Summer fever at Head Quarters, our sheet anchor was venesection and free purging - employed early in the attack -"

To re-capitulate — The inflammatory Endemic  
"endemic Causus" — "concentrated Endemic"  
or "Yellow Fever" — has been considered  
in the foregoing pages, as a disease, sui  
generis: — peculiar to strangers on their  
arrival within the Tropics from northern  
regions — As being occasioned neither by  
vitiated human nor marsh effluvia, but  
on the contrary, by the direct operation of  
excessive and permanently continued heat,  
probably accompanied by fatigue and  
intemperance; — and as being liable to  
subjects of inflammatory Habits — indigenous  
to the climate, — never infectious, — nor liable  
to be transferred to other regions. Hence  
we have also been induced to regard it



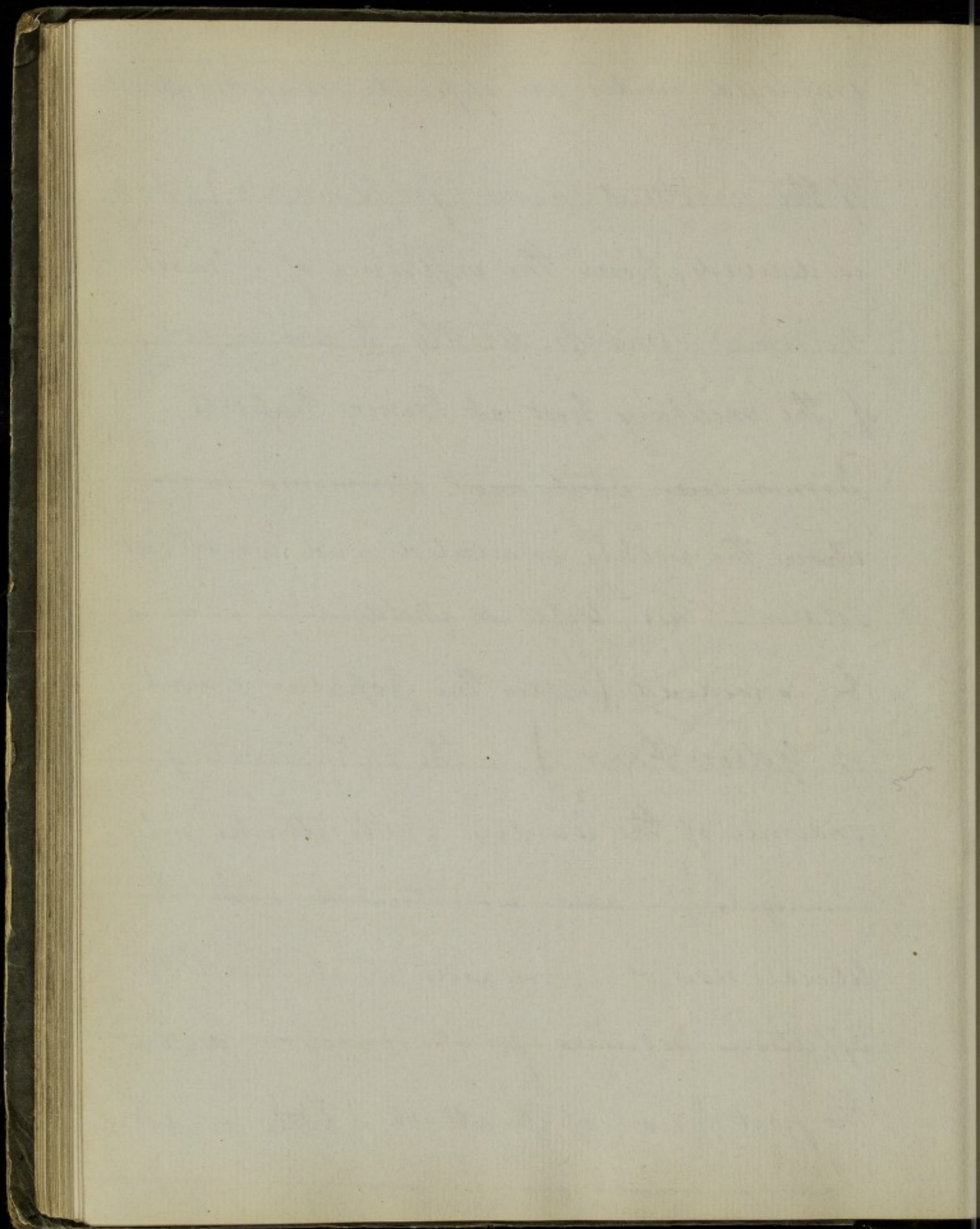
as but little allied to idiopathic fever:  
which, (as we have observed it in the West  
Indies) we apprehend to consist in a  
state of manifest debility from the accession.  
While the producing Causes, both pre-disponent  
and occasional; — as likewise the symp-  
toms of the Disease which at present  
engages our attention: — equally tend  
to evince its highly inflammatory  
nature at the attack: A fact we have  
reason to presume still more strongly  
substantiated in the pointed success experienced  
by many respectable practitioners — from a  
method of treatment adopted on this  
opinion: but which could not have failed  
to prove injurious, had the same been





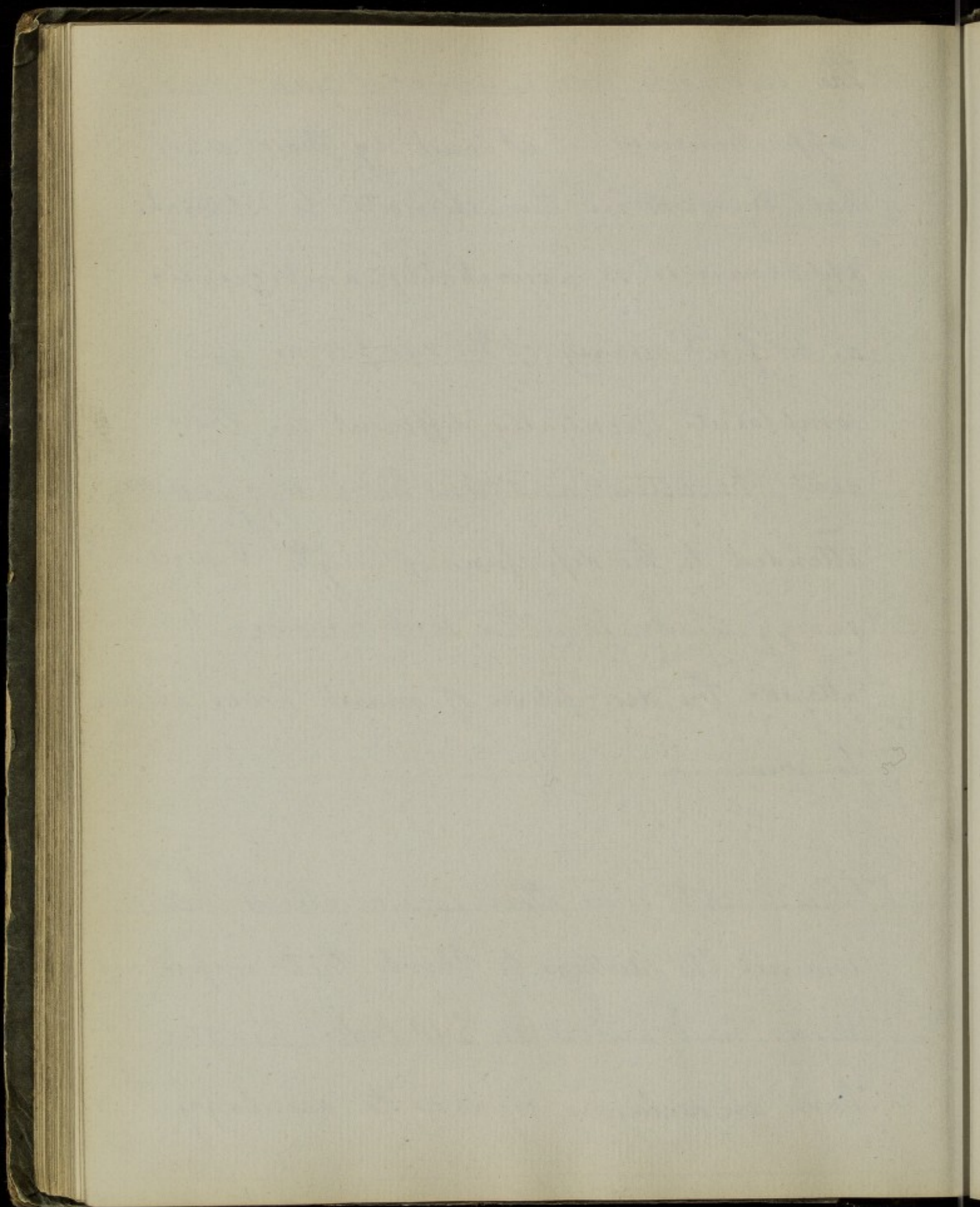
employed under an opposite consideration.

If the remittent Fever (for Example) which is derived from the influence of a most noisome swamp directly to windward of the military post at Prince Rupert's Dominique: which most commonly seizes upon the weakly, enervated and worn out soldier — his wife or child; — were to be considered, (under the popular name of "Yellow Fever") as the inflammatory endemic of the country which attacks only strangers — and were treated with the liberal use of evacuants which this latter affection requires for its reduction during the first period of its attack: little doubt, I can presume, will be entertained of the



The injurious consequence of such mis-  
apprehension — at least by those who  
have learned in this climate to estimate  
appearances so remarkably ambiguous  
as we find many of the symptoms of  
complaints, essentially different in their  
real character: and who have consequently  
attended to the depression of strength & mental  
energy which, from the commencement  
attends the description of marsh Fever alluded  
to above —

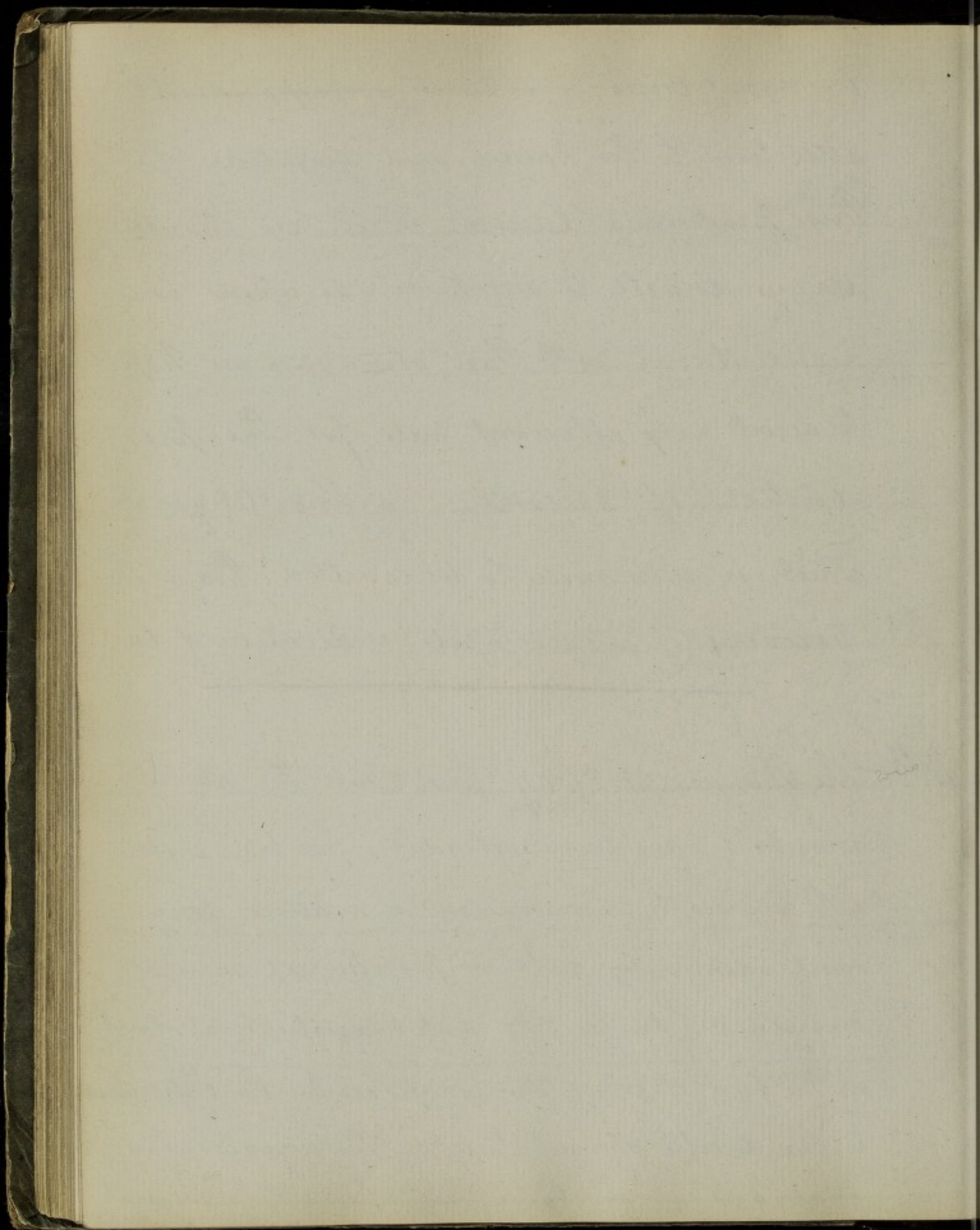
These, with some other considerations have  
induced the author to think that, important  
errors have arisen in West India practice,  
from an exclusive regard to analogy



in symptoms — without correspondent attention to the nature and operation of their producing causes. which we should always do well to ascertain: as upon our acquaintance with these, alone can we hope to direct any efficient rule for the prevention of Disease — a knowledge in which is even more to be coveted, than the discovery of a successful indication of cure.

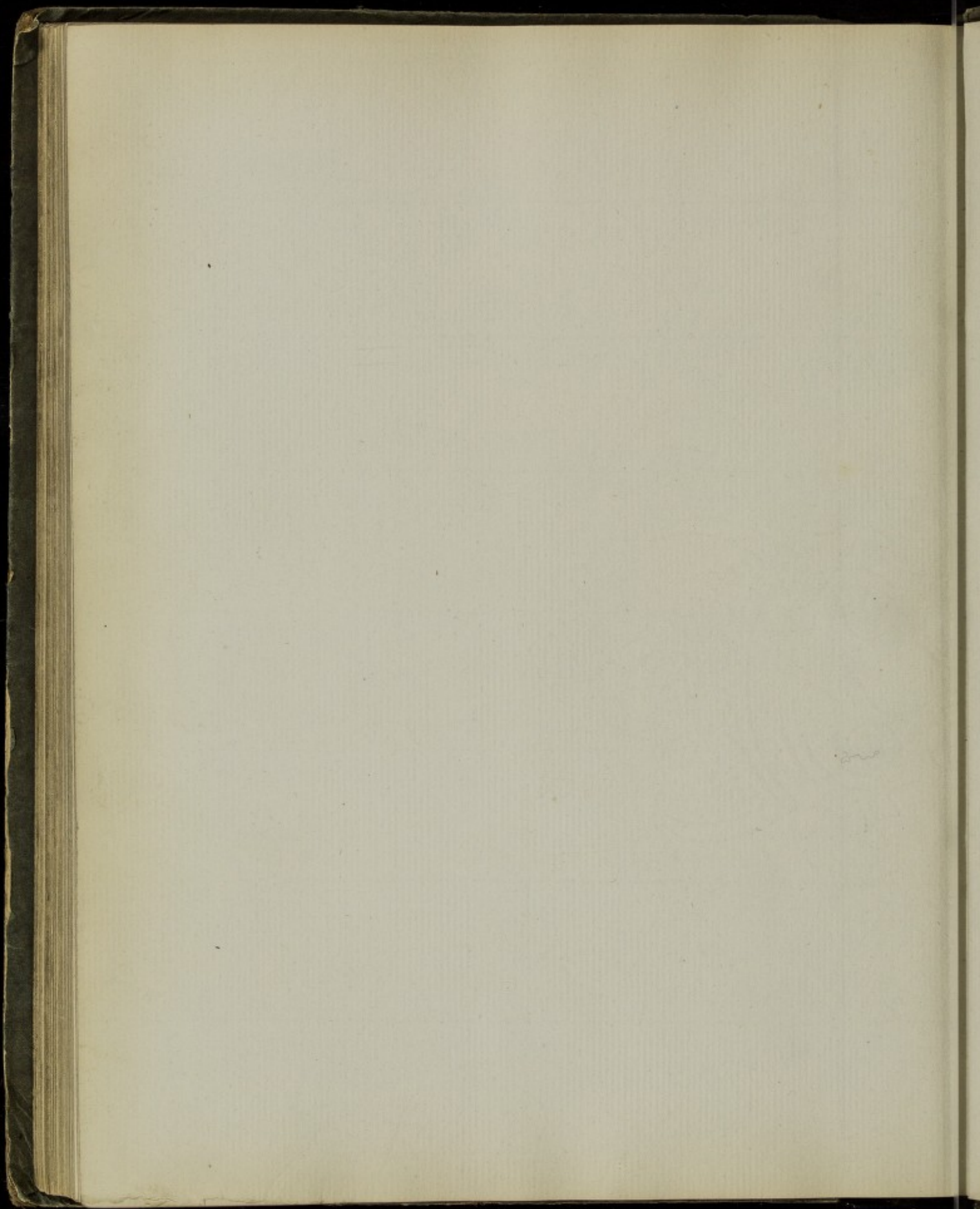
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WB The Manuscript "Essay" from which the above "remarks" — have been extracted, has been written with a view to recommend a practice long since adopted by certain professional men of eminence. This is the antiphlogistic treatment in the first stage of the complaint, in opposition to the directly stimulating — the universally evacuant — or the (lately fashionable) mercurial plan of cure.

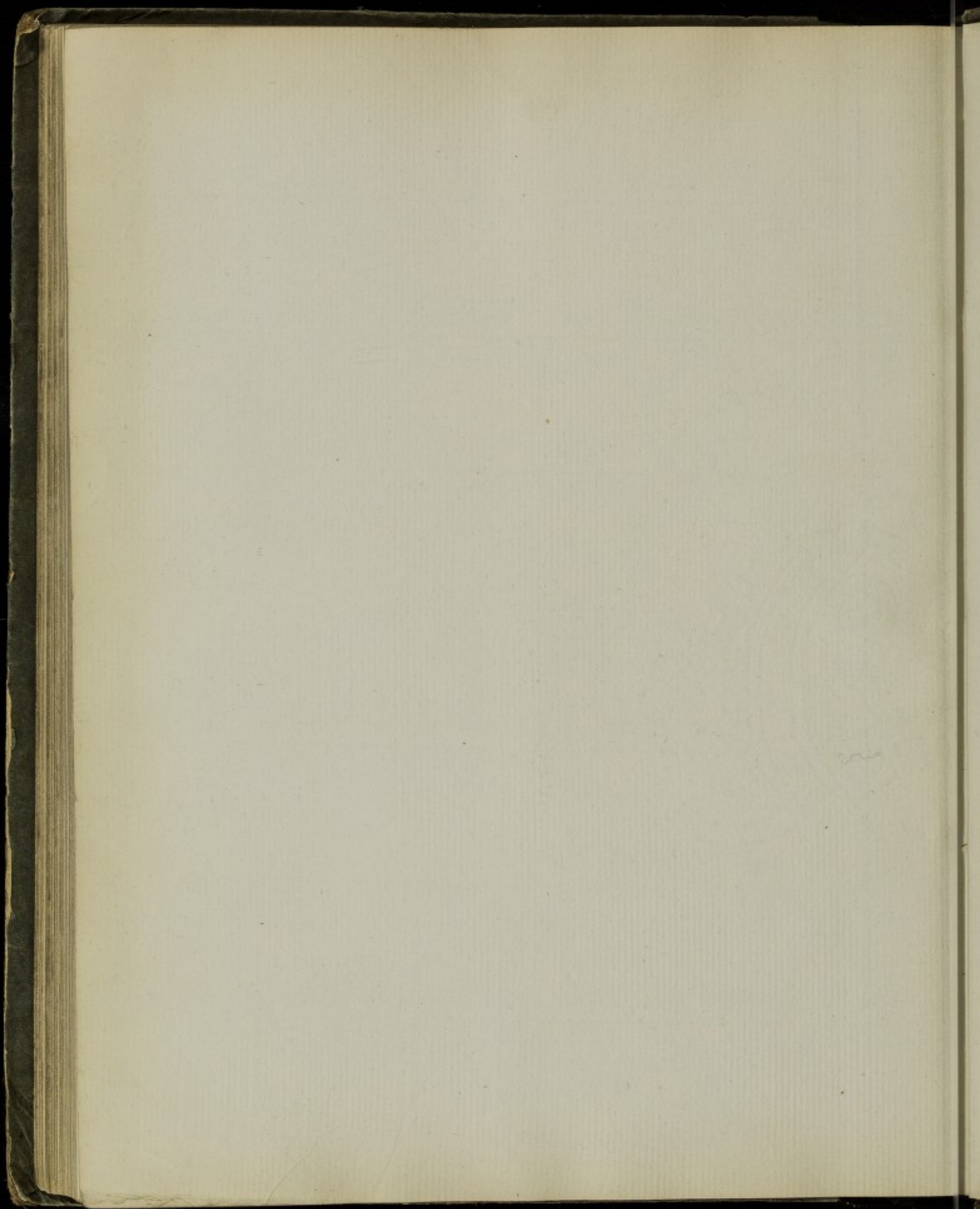




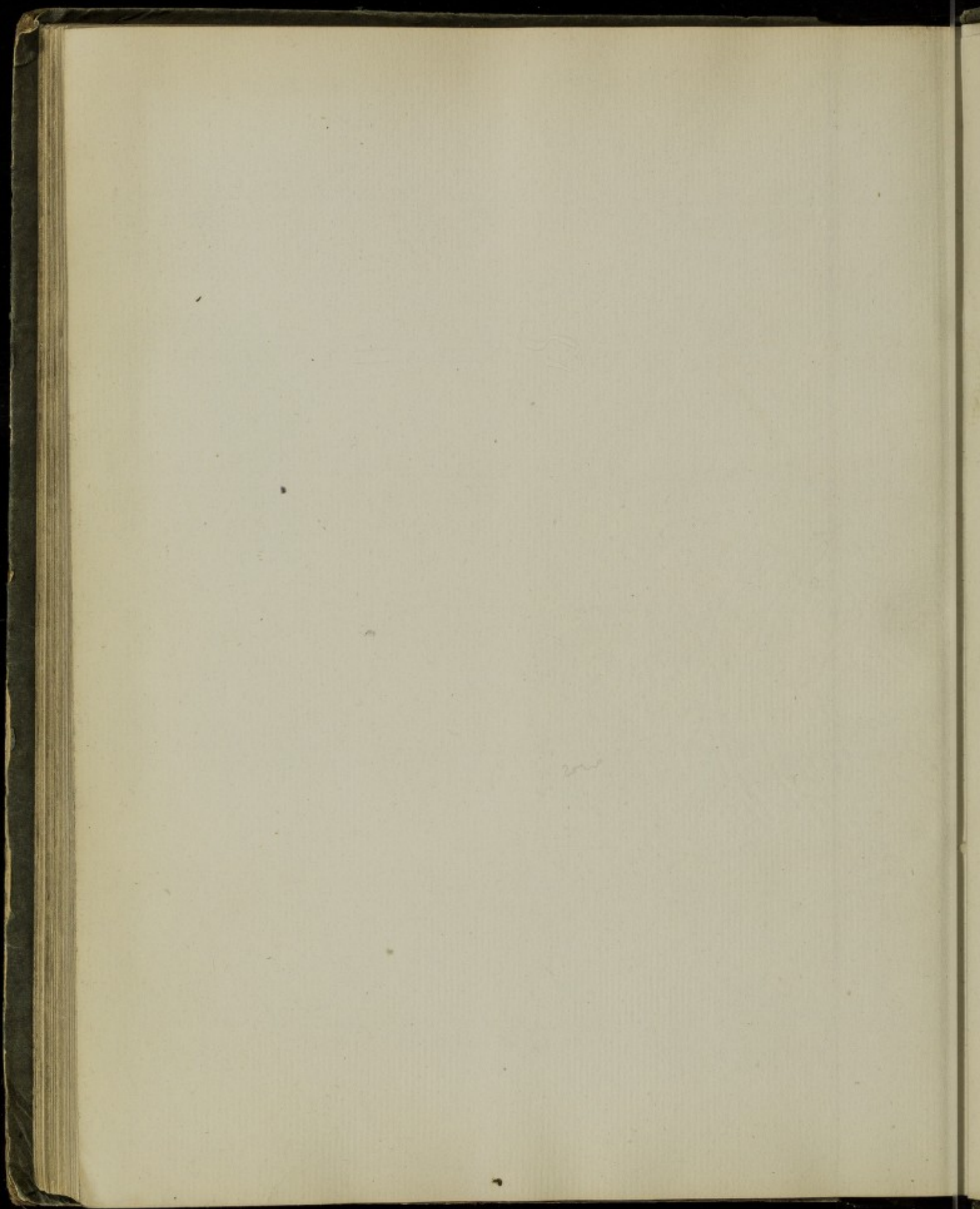


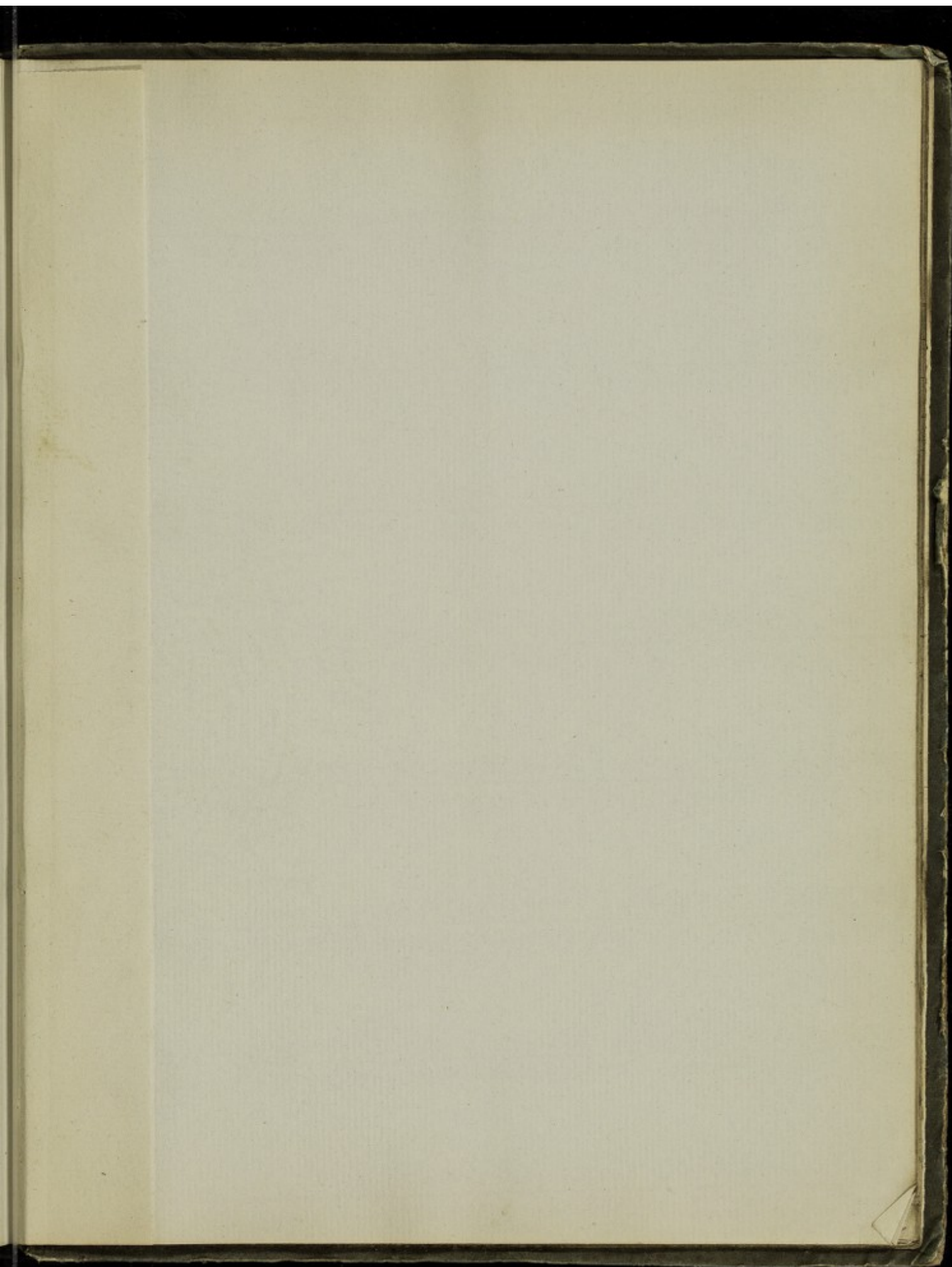


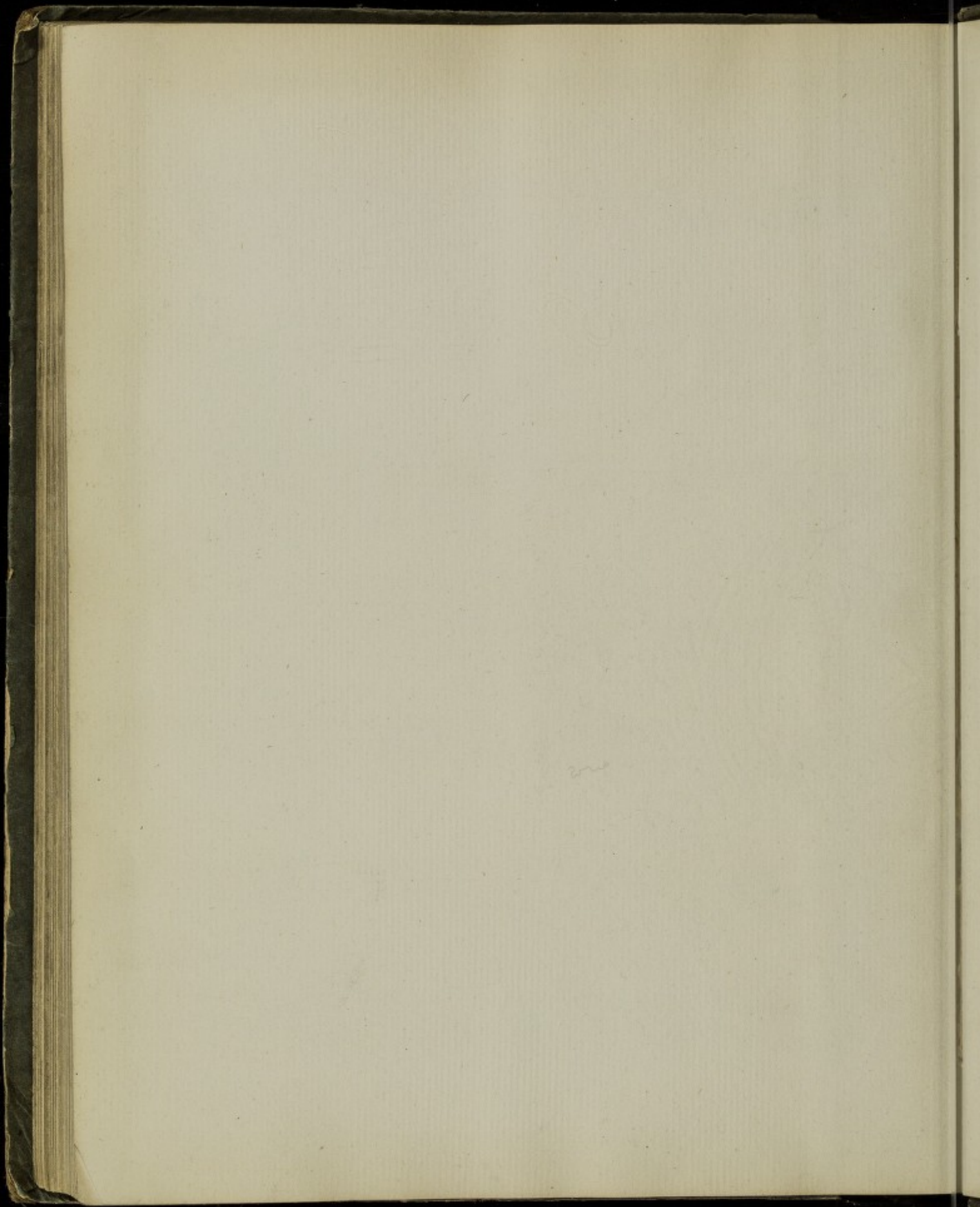
















- Note -

I have here subjoined - 1<sup>st</sup> A General State of the weather & Thermometer in the West Indies, taken from a daily Register, on which the remarks were made at 6<sup>o</sup> Clock A.M. 9- 12- 3 P.M. & 6<sup>o</sup> Clock in the Evening -

2- A General State of the weather &c during a Voyage from Grenada in the West Indies, to the British Channel, as daily observed (when circumstances would permit) at 9<sup>o</sup> Clock A.M. 12- and 6<sup>o</sup> Clock P.M.

and I have 3<sup>rd</sup>s transcribed from the public prints some remarks made on the same subject during the present Summer, by which, amongst other things, it appears that when the Thermometer was at 56<sup>o</sup> in the Channel during a Fog - it was as high as 87<sup>o</sup> in London - the month following -

The analogy between the consequences of this suddenly increased degree of Temperature, and the permanent excessive heat of tropical Climates, appears striking; & if pursued, might tend to useful investigation.

General State of the weather and Thermometer during part of the years 1805 - 6. 7 and 1808. exhibiting Monthly Abstracts of the Sick in Garrison Hospital Grenada

1805	Weather			Remarks	Thermometer				Abstract of Sick					Diseases							
	No. of days fair	No. light rain	No. heavy rain		Highest		Lowest		Greatest height of the barometer	Remained in Hospital	Sinc admitted	Total	Discharged	Died	Remaining	Fever	Bowel Compt.	Ulcers	Venereal	Pulmonary	Convulsions
					Morning	Evening	Morning	Evening													
Month	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	Day	
May	15	10	6		81	86	79	84	723	55	60	115	64	3	48	11	10	18	6	1	3
June	12	15	3	Three days heavy rain Mean 73	81	87	70	73	657	18	65	113	71	4	38	8	10	17	3	..	..
July	5	18	8	Thunder & Lightning	82	87	79	82	707	38	115	153	92	8	53	17	13	12	8	..	3
August	9	6	16	Thunder & Lightning	82	87	77	75	679	43	86	139	95	11	33	14	7	7	3	..	2
Sept.	6	18	6	Thunder & Lightning	81	87	70	77	879	33	135	168	97	13	57	14	27	14	1	..	1
Oct.	5	17	9	Thunder	81	86	78	82	860	57	132	189	113	8	68	11	29	23	1	..	4
Nov.	7	20	3		80	86	77	75	838	68	85	153	119	12	62	13	17	26	3	..	3
Dec.	12	12	7		80	85	76	79	824	62	68	130	65	10	50	9	3	30	3	..	5

General Remarks

1. The Thermometer used was Fahrenheit's - placed in the shade in a large open Room -
2. Circumstances frequently interrupted, regular remarks: when the numbers are incomplete therefore, no observation was made.
3. Greatest height of the Thermometer exposed to the Sun, at any time observed, has been 136 Degrees -
4. The Thermometer at the Grand Etang, - a situation in the interior of the Island about 115 Feet above the level of the Sea, usually falls 9 Degrees lower than in Saint George's.
5. The prevailing Diseases - remittent Fever - Diarrhoea - Dry belly ache & Ulcered Legs - especially amongst the Black Soldiers -

Thunder & lightning

1806

Months	Weather			Remarks	Thermometer		Abstract of Sicks							Diseases														
	No. days fair	No. Light rain	No. heavy rain		Highest	Lowest	Remained	Since admitted	Total	Discharged	Died	Remainng	Fever	Synochus	Typhus	Scarlet	Dysentery	Convolvus	Dropsy	Epilepsy	Hepatitis							
					Morning	Even																Morning	Even	Per cent strength				
Jan.	13	16	3		78	84	73	79	87	3	60	110	63	9	38	4	4	26	1	1	2							
Feb.	12	8	9		79	84	73	76	87	0	30	46	58	7	31	3	3	18	2	2	1	1	1					
Mar.	12	8	11		80	85	72	79	84	0	31	46	77	40	2	35	2	1	22	2		5	3					
April	12	10	8		80	86	78	79	87	9	35	36	71	41	4	26	5	1	15		3	1		1				
May	16	8	7		81	87	78	79	88	8	26	49	75	43	2	30	5	4	11	1	2	5	1		1			
June	6	5	19		80	85	78	78	85	0	30	42	72	35	5	33	7	6	14	1	2	3						
July	2	18	11	Thunder	81	85	78	80	82	9	33	43	76	46	4	26	2	3	13		3	5						
Aug.	9	16	5	Thunder	83	88	78	82	85	3	26	74	100	48	10	42	8	5	20	3	1	3	2					
Sept.	8	16	4	Thunder	82	88	78	82	86	9	42	64	106	71	4	31	6	8	11	3	1	2						
Oct.	15	10	6	Thunder	82	87	78	81	87	0	31	67	90	56	3	39	3	13	11	3	4	3	2					
Nov.	9	17	4	Stormy	82	86	79	78	80	3	39	64	103	49	7	47	9	11	16	3	5	2	2	1				
Dec.	10	14	7		80	85	75	81	87	6	47	90	137	80	4	45	13	9	13	4	1	5						

*Journal of the Hospital for the Poor, London, 1806*

1807.

Months	Weather			Thermometer				Abstract of Sicks						Diseases																
	No of days Fair	No Light rain	No heavy rain	Highest		Lowest		Present	Remained	Once admitted	Total	Discharged	Died	Remainings	Fever	Dysentery	Miles	Diarrhoea	Pulmonia	Venereal	Dry belly	Acute	Paralytic	Convalescent	Rheumatism	Epilepsy	Catarrh	Punished		
				Morning	Noon	Morning	Noon																						Eq	Eq
Jan.	15	7	3	80	86	75	81	830	45	90	135	74	6	55	142	15	3	2	6	12										
Feb.	21	7	-	81	85	70	82	871	55	112	167	111	3	33	73	12	9	1	1	15	1	1	3							
Mar.	26	5	-	82	85	79	81	810	53	105	158	116	7	35	72	9	3	1	7	1	2	2	1							
April	29	1	-	83	86	81	84	1120	109	52	161	129	2	30	2	22	2					1	1	2						
May	17	11	-	Thunder	88	83	1225	30	107	137	62	4	71	3	8	34		1				1	19	3	2					
June	5	23	2	Thunder	81	85	70	70	1137	71	63	134	56	6	70	1	23	1	3	3	2	2	2	14	3	1	0			
July	7	16	8	Thunder	81	85	70	70	998	72	81	153	83	8	50	12	22	3	1				1	6	1	4	0			
Aug <sup>r</sup>	11	10	10	Thunder	82	86	79	82	949	58	68	126	64	8	54	2	5	26	1	2		1	5		5	7				
Sept <sup>r</sup>	17	8	5	Thunder	82	86	79	80	923	54	71	125	62	5	57	1	6	33		1	5	1	5		2	3				
Oct <sup>r</sup>	10	16	5		83	86	76	80	929	57	62	119	64	4	51	4	23						0			1	5			
Nov <sup>r</sup>	10	18	2		80	84	76	80	860	51	97	148	90	1	57	10	19	1	1	3	2	1	13		4	3				
Dec <sup>r</sup>	5	20	6		79	83	76	78	850	57	91	148	84	6	53	7	20	1	2	1	-	2	1	14		2	3			

On the 9<sup>th</sup> Sept<sup>r</sup> at noon the Thermometer at the Grand Stang sunk to 75° being 86° in Town.

21 Sept<sup>r</sup> Comet seen

1808

Months	Weather			Remarks	Thermometer				Hygrometer	Abstract of Sick						Diseases															
	No. days fair	No. light rain	No. heavy rain		Highest		Lowest			Wet	Present	Remained	Since adm <sup>d</sup>	Total	Discharged	Died	Remain <sup>ing</sup>	Fever	Dysentery	Ulcer	Hepatitis	Pulmon <sup>ia</sup>	Catarrh	Diarrhoea	Paralys <sup>is</sup>	Parished	Convales <sup>cent</sup>	Prostr <sup>ated</sup>	Spelid <sup>ic</sup>		
					Morning	Even <sup>ing</sup>	Morning	Even <sup>ing</sup>																							
Jan	16	12	3		78	82	73	76	H 65 L 56	868	53	55	108	59	3	16	2	10	1	5	0	1	2	4	5						
Feb	10	17	2		78	82	73	76	H 63 L 55	939	46	79	126	66	0	51	8	26	1	1	2	3	0	1	1						
Mar	16	12	3		80	84	76	70	H 65 L 52	913	51	58	109	51	4	54	12	1	14	3	4	2	3	13	2						
April	14	2	.		80	86	79	83	H 60 L 54																						

H. implies greatest degree of moisture indicated by the instrument  
 L. ———— Lowest ————

*Faint handwritten notes at the bottom of the page.*

2

General state of the weather &c during a Voyage  
from Grenada to the British Channel -

Days	Weather	Thermometer			Hygrometer		Wind	Longitude	Latitude	Remarks
		9 De,	12 De,	6 De,	9	12				
APRIL 21	Calm	82	85	.		56				Sailed from Grenada 19 <sup>h</sup>
22	Calm		85	.		56				
23	Calm		85	.		57				
24	Rain		85	.		56				
25	Rain		85	.		56				
26	Rain		85	.		56				
27	Rain		84	.		57				Anchour at Tortola
28	Rain		85	.		57				
29	Gale	83	81	.		60	NE			
30	Gale	77	74	.		62	NE			Lightening
MAY 1	Clear	"	81	77	61		E			Rain in the Evening
2	Clear	"	77	70	59		E			Sailed from Tortola
3	Calm	"	81	"	58		"			
4	Calm	"	80	"	57		E 6 S			Heavy rain at night and lightening -
5	light air	"	80	77	59		"			Rain in the Evening
6	Breeze	"	81	"	60	"	"	64-29	22	Rain afternoon
7	Breeze	76	84	77	62	60	SE	63-37	22-38	
8	Calm	76	82	.	60	59		63-29	23-15	Brisk Gale
9	Breeze	76	73	73	60	62	ESE	63-44	23-33	Cloudy Brisk Gale
10	Breeze	75	75	74	62	61	E 6 N	64-27	24-37	Gale in Night
11	Breeze	77	77	76	61	63	SE	63-25	26-2	Strong Wind & rain
12	Breeze	74	73	74	64	68	SE	60-04	"	Lightening. Thunder
13	Hazy	72	77	72	76	76	W	60-38	28-50	Light. & rain, squalls
14	Hazy	70	"	"	77	"	SE	59-30	"	Thunder, squalls, rain
15	Hazy	70	70	69	81	81	S	57-38	30-40	Gale, heavy rain, thunder & lightening

Days	Weather	Thermometer			Barometer		Wind	Long: Lat.		Remarks
		9	12	6	12	6		Fog. min	Sea. min	
MAY 16	Hazy	68	70	68	85	85	SW	56-39	31-35	Breeze
17	Hazy	68	70	"	85	85	SW	55-19	32-33	Fog
18	Hazy	68	70	"	81	"	SW	53-41	33-32	Fresh Breeze
19	Hazy	68	68	66	80	80	S	50-11	34-39	Fresh Breeze
20	Clear	67	68	66	79	75	S	48-21	36-8	Fresh Breeze
21	Hazy	66	70	68	78	76	SE	45-76	37-16	Rain at night
22	Hazy	68	69	68	75	79	WSW	46-11	38-23	Rain at night
23	Rain	68	70	66	75	75	SW	42-27	39-20	Rain at night
24	Fair	60	61	62	69	66	ESE	42-11	39-39	Rain at night
25	Cloudy	61	61	61	75	75	ESE	41-42	40-51	Gale
26	Fair	66	62	58	73	65	ENE	42-13	42-7	Light air
27	Fair	56	56	60	66	66	NE	40-17	42-34	Gale
28	Fair	58	58	58	63	63	NSE	38-25	42-28	Breeze
29	Cloudy	60	63	61	63	61	NW	36-57	42-50	Breeze
30	Fair	58	62	61	67	67	W	34-57	43-36	Light air
31	Fair	62	65	62	73	73	SW	32-45	44-38	Breeze
JUNE 1	Fog & rain	60	64	60	70	70	SW	29-44	45-56	Strong Breeze
2	Fog & rain	66	62	60	86	80	WNW	27-37	46-23	Breeze
3	Fog & rain	64	62	62	89	90	NW	24-31	47-17	Breeze
4	Fog & rain	"	"	62	85	85	S	22-47	46-23	Breeze
5	Clear	60	60	58	85	85	W	21-55	47-17	Breeze
6	Clear	60	64	58	87	80	SW	19	47-56	Breeze
7	Clear	58	59	"	89	80	W	15-33	48-23	Breeze
8	Fog	60	60	60	87	85	WSW	11-33	48-40	Calm
9	Fog & rain	58	60	58	87	87	SW	12-10	48-60	Breeze
10	Clear	57	58	"	85	90	S	10-4	48-55	Calm
11	Calm	58	60	56	80	81	NE	9	49-1	Cloudy
12	Breeze	56	59	59	76	76	W	8-36	49-7	Cloudy
13	Breeze	58	59	59	80	80	WSW	8-6	48-41	Cloudy

Days	Weather	Thermometer			Hygrometer		Wind	Long: ° min	Lat: ° min	Remarks
		6	9	12	12	6				
14	Fog	58	58	57	90	80	SW	6	49-1	Breeze - Soundings
15	Fog	58	59	"	88	80	NE	"	49-3	Clear P. M.
16	Clear	57	60	"	75	"	NE	"	49-33	Clear Land disc'd.
17	Fog	57	56	"	70	"	W	"	"	

- 3 -

" On the 14<sup>th</sup> July - The Thermometer under the northern entrance of the Royal exchange at noon was 87° on the 15<sup>th</sup> in the shade, in the open air opposite St. James' Park (without any reflection of heat - at 3 o'clock P.M. 88½ and the day following at 94°."

" We have accounts communicating numerous distressing consequences of the late extraordinary heat of the weather. A man at Corby, in Lincolnshire, on Wednesday, while hoeing turneps, was so overcome by the heat, that he died in the field - a woman employed in making hay in a field adjoining the Town of Huntingdon, complained of being ill from the heat, & died before she could get home. A woman at Bellesdown, in Leicestershire, on Wednesday, died of excessive heat. The statement from which the above is taken (18<sup>th</sup> July) enumerates several instances of the Deaths of Horses



at this period, from the same cause -

July 13<sup>th</sup> - "At Slays in Middlesex the Thermometer was in the shade at  $92\frac{1}{2}$  degrees - In Kent at 98. in various parts of London 100. and exposed to the Sun at its greatest height, at 117 -"

"Dr. Pole, of Bath states, on the 12<sup>th</sup> July the heat at 8 A.M. - 75. at the meridian 91. at 9 in the Evening 77. -"

July 25<sup>th</sup> - "Two privates of the 2<sup>nd</sup> Regiment are stated to have died on their march from Ipswich to Harwich for embarkation, owing to the heat of the Weather. & a third, it is added, died on the Beach, on reaching Harwich" -



