

THE CAUSE OF CHOLERA

BY A

DANISH NATURALIST.



„Aliud est codices scribentium, aliud est lumen naturæ.“

Paracelsus.

Φιλαιτιον εστε.

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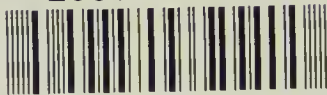
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•Plus valet favor judicis, quam centum leges codicis•
»Veritas odium parit.«

Although the force and justice of these two apothegms have been verified by the experience of my whole life, — the latter being attested by many a hostile encounter, bodily as well as intellectual, while the former has full often awarded me an uncontested victory —, the love of truth constrains me still to speak without respect of persons.

Led by my innate love of the medical science and following the researches which that love has made the duty of my life, I am arrived in my great old age at this certainty, that the Inexplicable is so only in appearance, nothing being simpler than is the marvellous when divested of the robe of mystery with which ignorance adorns it.

We must, however, bear in mind that the greatest stumbling-block in the path of science is laid there by the apathy of those, who, professing to be pilgrims of truth, follow servilely the beaten track, acquiescing in whatever has been laid down as law by those who have gone before, especially when adventitious circumstances have raised the authority on which they lean, above his contemporaries, not remembering that the ear of corn which overtops the rest of the crop, is of all others the emptiest.

The philosophers of old defined wisely between the knowledge of memory and the knowledge of research. He who derives his erudition, say they, only from what he has heard and read, may be in possession of a prodigious fund of learning without being, therefore, one whit the wiser. He alone is wise who has sought his knowledge in Nature. He who owes his learning to others only is rich in words not thoughts, and is to the truly scientific as a raven to Jove's godlike bird.

In stead of following the beaten track which so often leads to some labyrinth in which many who have gone before have been mazed, we will pursue the way pointed out by Nature, confident that it will lead us sooner and more surely to the goal.

From the first hour I directed my attention to contagious diseases: the oriental plague, the yellow fever, the Asiatic Cholera, the Egyptian ophthalmia, I have above all things desired that it might be mine: "Cerberum ab inferis extrahere". And this desire took deeper and deeper root, the more clearly I perceived how little the innumerable adduced causes of these epidemic diseases answer to their well-known effects; for it has always been my conviction that **the cause must answer to the effect.**

And thinking thus it was as if a light flashed on my mind, and I heard a voice that said: „you ought“, and another voice added: „you can“. And I myself averred: „I will“. And when these three: **duty, power and will** are joined in one, I have with Horace always considered: „nil mortalibus arduum est.“

Moreover he who wills and wills with earnestness that which he clearly sees he ought, if he feel the consciousness of power to accomplish his intent, is sure of achieving something.

Howfar the proverb: „παντα λιθον κινειν“ may be applicable in this case, I leave the world to judge.

•Præ omnibus qværamus verum•

»Numqvam aliud natura, aliud sapientia dicit.•

Juvenalis sat. 14

In order to prevent or cure a disease it is necessary first of all to know it well. However humiliating or revolting to human nature the facts which our investigations disclose may prove to be, we must not shrink from them, but must look on them in all their bearings, assured of their being landmarks on the way to truth.

Every physician should be acquainted with the dark side of human nature, that he with a discerning eye may be able to judge of the effects of sin and folly; to gain the victory in his warfare with diseases of the mind and body, he must know the devastation both moral and physical which obscene lusts and vice of every kind bring on.

From an early period in my life, when anatomical prosector in Kiel, through all the years I have passed in travelling by land and sea, — the one great ruling interest of my life constantly in view — I have with unwearying perseverance sought every imaginable opportunity of making investigations that might tend to the solution of my problem, and many surprising discoveries have I made during my researches.

Being as little inclined to be imposed upon as to arouse mistrust, I have seldom or never travelled in my own character as a physician; and yet how often have I not only seen „figulus figulo invidet“, but have also experienced: „invidia virtutem ut umbra corpus sequitur?“

In order therefore to avoid as well chicanery as surveillance, and in accordance with my motto: „plus esse quam videre“, I used on my travels to assume some character that was likely to afford me opportunities of observing human nature in all its frailty.

With this view, I have travelled sometimes as a portrait-painter, availing myself of the opportunities this profession afforded me, to delineate the features of Cholera in all its stages; sometimes as a vender of rare perfumes, initiated in all the mysteries of the toilet. Yes, I have even assumed the part of a murium venator, well versed in ridding human habitations of all sorts of vermin.

And these several parts I have played by turns, changing character with the changing scene, even as it suited the purpose I constantly had in view.

Many a time I have offered my services now to some wealthy family, now to some Cholera hospital as attendant on the sick, and in this capacity I have found especial opportunity of making valuable observations.

If I lay no weight on years passed in arduous and expensive voyages and travels, during which I have so often had „alterum pedem in cymbâ charontis“, I have not encountered such Herculean difficulties in realizing my idea as I at first had been led to anticipate from the labours of my precursors, who in their researches have so often mistaken the shadow for the reality: nubem pro Junone.

Favoured by fortune, even with regard to the sinews of war: „nervus rerum gerendarum“, I have had a pleasure-yacht, built and equipped by myself, on board of which I have sailed uncontrolled from island to island from coast to coast, going ashore

where I chose and staying while I liked; and in this way I have been able to visit, opportunely for my purpose, those places in which I knew pestilential maladies were raging.

As an experienced anatomist, well versed in comparative anatomy, my skill in this branch of science has afforded me results which have thrown much light on my researches and contributed to confirm my subsequent theory of the real nature and origin of pestilential diseases, more especially of Cholera.

To attain such results I have experimented on beasts as well as on human beings, and these experiments have often been of such a nature that the eye of science only should be cognisant of them, and nothing less holy than the design of benefiting the human race could authorize them.

In these investigations the sense of smell has afforded me valuable assistance, and I may here remark that the smell of the Cholera-poison is too peculiar to be described.

The germ of Cholera is not in the air; nor is it transmitted by the air, as is sufficiently shown by that disease pursuing a course contrary to that of the prevailing wind.

From South-East to North-West it takes its way, following the same track as the different tribes of the human race have pursued in the emigrations of the nations, keeping the great high-road of the peoples over earth and over sea; proving in its mighty progress that a certain infectious matter does in reality exist — the secret vehicle of its devastating march.

After many years devoted to medical experiments and investigations, I have attained the firm conviction that no atmospheric nor telluric change, however in-

salubrious; no sort of food or drink; no individual predisposition for the disease; no effluvia from the sick or any sort of evacuation of theirs whatever; neither the clothes a patient has worn, nor the bedding in which he has lain under his sickness; no contact, even the most intense, with any individual in whom the disease has declared itself; no malaria, however otherwise unhealthy; no filthiness of person or of dwelling, however loathsome, can be the primary cause of Cholera. Having attained this conviction the question is: what then is the cause of this horrible disease?

The knowledge I had with great expense and difficulty acquired of animal poisons and my initiation into the secret of their composition, led me, — who never for one hour of my life have lost sight of the great doctrine of Nature: that **the cause must answer to the effect** — to infer that **the primary cause of Cholera infection is to be traced to the genitals.**

Many facts however seemed to militate against this inference: For example, infants at the breast and men of the most advanced age being often attacked by this disease and very frequently succumbing to it after a few hour's illness.

Having, nevertheless, convinced myself most positively that neither the Cholera-patient nor the Cholera-dead can propagate the infection, and that an infectious matter does yet exist, I pursued my researches with ardour, and soon obtained incontrovertible proof that the source of this infection is to be traced to **persons seemingly in good health.**

It was however a difficult task to pursue my researches in this direction, and even more difficult to undertake such investigations without betraying their purport.

And thus, after having for many years earnestly studied and not unsuccessfully treated this disease, I seemed to stand now almost as far from the goal as ever.

For in order to attain to certainty in this respect, I should have to find several persons willing to submit to be experimented on in various ways.

My patience began to give way, and I asked myself if the problem, to solve which I had devoted my whole life, was not a Gordian knot, as little to be loosed be me as by any other human being.

But what happened! — Early one September morning on a solitary walk in a city where Cholera was raging, after witnessing the hurried interment of some fifty victims of that disease, my resolution suddenly reawoke with renewed energy: And, seizing on the ascertained fact that a month or five weeks is the utmost period in which the malady can lie hidden in one infected, I laid my plan accordingly, persuaded that, if I could meet with the crew of a ship that had not touched at any port during a voyage of at least six or eight weeks, nor during that time had come in contact with the crew of any other vessel, I should then have the most favorable opportunity of pursuing my investigations.

And I called to mind what Napoleon the Great once said to Murat: „As long as anything is left to do, nothing is done.”

So I set out forthwith for one of Europe's greatest sea-port-towns, well knowing that Cholera was then raging there.

After a few day's stay in that city, I was fortunate enough to catch sight of a large South-American ship just coming to anchor in the roadstead. On inquiry

I learnt that it was from the Brazils and had been seven weeks out.

Now having once happened to make an advantageous purchase of diamonds from the captain of a vessel from the same coast, I knew immediately what to do.

I stepped into a boat and bid the boatman set me aboard the American, alleging that I intended purchasing precious stones from the crew.

As I had often experienced how a key of gold opens all locks, I slipped a gold-ducat into the fist of the sailor who lowered the gangway-ladder for me, and such an act of munificence soon reaching the captain's ears, he did me the honor of inviting me down to his cabin.

I soon learnt what interested me most, namely that none of the crew had been ashore nor had come in contact with the crew of any other vessel since they weighed anchor, seven weeks before.

The crew, eleven in all, were in the best health and none had been on the sick-list during the voyage.

After chatting a little about diamonds and other precious stones, I took leave and went ashore.

The next evening I went to the harbour and met two neatly dressed sailors, just come ashore. In one of them I recognized the mate of the Brazilian ship and I could see he knew me again as the munificent ducat-giver. They steered for town; I followed unobserved in their wake and saw them enter a tavern where the hostess and the waiting-maids were very goodlooking. An hour after, I saw them leave the house, and, meeting them again, as though by chance, I soon got up a talk with them about precious stones and other curiosities, and on the mate telling me he had some diamonds about him, I proposed having a

look at them. At my suggestion we returned to the tavern they had just left, where we were well received by the handsome landlady and shown into a private room, where I examined the mate's diamonds and paid him what he asked for them.

The next day I went aboard the South-american again under the pretext of buying precious stones, and purchased some rough-diamonds of trifling value. I again saw the mate and his comrade, seemingly in perfect health, and was received by them as well as by the rest of the crew quite like an old friend, my liberality having gained their hearts.

Two days later, about 3 o'clock in the afternoon, I paid a visit to the lazaretto nearest the harbour, and to my surprise found one of the two sailors I had been with in the tavern, the mate's companion in his trip ashore.

He told me that the mate died suddenly of Cholera the very evening of the day on which I was last aboard; that neither he nor the mate had been ashore since the day I bought the mates diamonds, and that he had been taken ill on board and brought directly to the lazaretto.

The following night this poor fellow also died of Cholera.

And now, I thought, I held at last the Ariadne-thread, the clew to the great mystery.

It seemed to me beyond all doubt that these two seamen, both Portugese, had caught the infection in the house they had visited on first coming ashore. To be convinced, I required, however, more positive proof.

My first visit to the tavern and my liberality in purchasing the mates diamonds, had made me „free of the house”, and I availed myself of this privilege to

become more intimately acquainted with the handsome landlady and her pretty waiting-maids, as well as with many who frequented the house, where with the help of my golden key, I soon obtained permission to make every kind of investigation that could tend to elucidate the subject of my research.

The results thus obtained convinced me of the justice of my inference, and this conviction became positive certainty after being confirmed by a multitude of cases all terminating in similar results, which, worthy of note though they be, I refrain from describing more particularly here, these pages being exposed to be seen by other eyes than those of science.

The decisive result of all these investigations and experiments, on beasts and birds as well as on human beings is this: that the Cholera-venom has its seat in the genitals of human beings as well male as female, and that the contagion is transmitted from one to the other in the act of copulation. But not by the act of copulation alone is the infection transmitted, for if a finger, for example, touch the parts which are the source of the poison — *sub præputio et frenulo clitoridis*, in the female, and *sub præputio glandis* in the male — the virus will adhere to the object coming in contact with it, and if it then while warm touch the mucous membrane of the nose or irritate the genitals, the contagion is forthwith transmitted to the living creature so touched, whether a human being or a beast or bird. The same effect will result, whatever the object that is the medium of transmitting the virus may be.

It is thus evident how children even at the mother's, breast and decrepid old people can be infected with Cholera.

Though the effect of direct contact with the Cholera-venom is only here spoken of, such absolute contact is not necessary for the transmission of the poison.

The emanation from the parts denoted when charged with the poison is sufficient to transmit infection, especially to the mucous membrane of the nose, and as a matter of course the nearer this membrane is brought to the source of this emanation the more virulent is the poison thus transmitted. But according to my experience this emanation is innocuous, when inhaled at more than a foot's distance from the object exhaling it, and the hand which in visiting those parts has become tainted with the virus, can be brought within half that distance from the face without danger.

As it is impossible to avoid coming in contact with the venom, when visiting the sexual parts or while assisting at child-birth, it is best in order to avoid infection to wash those parts as well as your own hands with a strong solution of sublimate and spiritus vini or spiritus frumenti mixed with *olium therebentini*. I have used this precaution during all my investigations and have then washed the solution off with soap and water.

It has often been remarked that persons of both sexes affected with primary syphilis, if under regular medical treatment, rarely or never are attacked by Cholera. This fact — if one — does not prove that the medicines used in order to eradicate the one kind of poison, serve to neutralise the other; but the simple secret of this is that during their cure venereal patients are lying at anchor, and thus for the time not exposed to be infected with Cholera.

It is also authenticated that children between the ages of 5 and 13 are more rarely smitten with Cholera

than those who are either above or below that age. This fact also tends to corroborate my doctrine; for at that age children are left more to serve themselves than younger children are, and having no suspicion — we will hope, at least, in colder climes — of the myterics of Venus, are less exposed to contact with the venom.

The sexual parts when infected being in a state of irritation, an itching arises which the infected endeavours to satisfy by rubbing and scratching either with the fingers or with some other object to which the virus attaches itself, and can be thus transmitted to other persons or even to animals. Thus for example, if in feeling whether a turkey-hen is about to lay an egg, a finger tainted with Cholera-venom happens to come in contact with the anal orifice, the bird will infallibly catch the infection and be attacked with Cholera.

In like manner may animals of every kind catch the contagion if any sensitive part come in contact with fingers polluted with Cholera-virus. Of this I have often convinced myself, by touching the noses of dogs and cats with the Cholera-venom and witnessing the deadly effect.

The great mortality among the renowned pet-cats of the Zouaves may be thus accounted for.

I was once eyewitness to a scene, the effects of which on the actors were as corroborative of the truth of this doctrine as they were horrible.

In hilari coetu aliquando ipse vidi quinque juvenes vegetos et valentes, a duobus aliis lascivis juvenibus ora et nares attactos digitis adhuc calidis et exhalantibus, cholera infectos esse, et tres eorum morti occubuisse, unum post quindecim horas, et duos ceteros intra spatium quinquaginta horarum. Unus ex iis duobus, qui crimen commiserant, et qui probabiliter digitum

suum infectum propriis naribus admoverat, etiam duobus diebus elapsis eodem morbo mortuus est.

I have witnessed many instances of the deadly effects of coming in contact with this virus, but none that carried off so many victims at one swoop.

That an essential part of the virus is volatile is demonstrated by the fact, that when the infectious matter becomes dry, or, even, cold, it no longer acts as Cholera-poison, but retains its irritating property; so that, if the eye be rubbed with a finger or anything else polluted with it, after it is dried or cool, an inflammation ensues in every respect similar to the Egyptian ophthalmia.

Whenever any organ in the animal frame is subjected to an unnatural irritation, such an irritation, when intense, engenders, even in the most healthy organization, a virulent and dangerous poison.

Even the moral affections when strongly excited call forth the same result.

This phenomenon we may witness in daily life.

The nobler the organs subjected to such an irritation, the more violent is the effect produced.

The sexual instinct and the gratification thereof is accorded by Nature to all living creatures as a necessary condition for the propagation of their species; if this gratification takes place in a manner contrary to nature, a sin against Nature is perpetrated, and Nature never fails to visit every sin against her with punishment proportionate to that sin's enormity

the cause answering to the effect.

„Per quæ quis peccat, per eadem punitur.“

And thus when human beings are so depraved that they seek the gratification of their inordinate lust in copulating with brute beasts, the crime against Nature is so heinous that Nature herself punishes the criminal in a manner as horrible as the offence: True ever to her own great rule that

„The effect must answer to the cause.“

The East, the cradle of the human race, is also the cradle of human vice.

The glowing Indian clime, quickening the blood of its children, incites to sensual pleasures, while the lower castes, wandering in the hallucination of ignorance and credulity, debased by the yoke of unscrupulous despotism, and surrounded by a wilderness of social depravation, abandon themselves to the most monstrous licentiousness.

With us, subjected to different social conditions, sensuality more rarely oversteps the bounds of nature; and though vice in the most hedious shape is more common than is generally supposed, the mask it takes care to wear is so cunningly made that the abominable fact is not forced upon our conviction as in the East, but, as the adulterous bed of Mars and Venus was veiled by the robes of the other Olympian Gods, so is obscene lust with us screened by the mantle of hypocrisy.

Judging by what I myself have witnessed, the Indian woman's concupiscence can as little be satiated

as the ocean can be changed into fresh-water by the influx of all the rivers that run into its lap.

I could tell of many a scene similar to those I have recorded below*), even more monstrous in its licentiousness, scenes of which I have been an eye-witness under one or other of the disguisements I was obliged to assume on my wanderings in that half-savage region of the world while in search of all that could tend to cast a light on the great problem of my life.

But I have told enough to illustrate the state of morality among the lower castes of natives in the East in our age.

Let us look back some thousand years and see what was the state of morals in the East in those days**).

*) Ut exemplum afferam unam mulierem Indianam, quæ, præter plures, ad coenam invitaverat circa viginti milites, et quæ, coena finita, semet ipsam obtulit omnibus convivis, qui libidini suæ satisfacerent apud eam pone loricam, hoc consilio in angulo quodam tentorii sitam. Hic favor non solum ab omnibus, qui aderant, sed etiam a stirpe ejus magno cum applausu exceptus est, et ab Indianis, maxime junioribus, pro merito extraordinario habebatur, quæ re adducti etiam catervatim eam ambierunt.

Vidi mulieres nudas saltantes motibus atque gesticulationibus maxime lascivis et libidinosas, et tanta nymphomania inflammatas, ut, in multis spectantibus, coitum cum plus quam viginti viribus una serie celebrarent. Una ex hisce mulieribus furiosis eo progressa est, ut postica sua asino offerret, qui mulierem sibi oblatam statim tractavit ut asinam naturalem. Omnibus hisce peractis mulieres istæ quidem lassatæ sed non satiatæ erant.

Novi societatem duodecim mulieribus constantem, cujus statuta postularunt a quovis viro, qui unam horam apud eas transigere cupiebat, ut primum pro venia introeundi viginti quinque imperiales solveret, quo facto solum in puris naturalibus aditum ad earum mysteriosa conclavia, in fornice profunda subterranea comparata, adeptus est.

***) Cum, exempli gratia, in lingua hebraica, coloribus vividis, inter alia, depingatur, quanta aviditas libidinosa excitata sit apud muli-

As I will not bring forward any statement that is not verified by the testimony of my experience, I will not assert what manner of unnatural crime is the most common, but declare that I have the most positive proof of a disease, in every respect resembling primary syphilis*), resulting from human beings of both sexes copulating with dogs; to which abomination women often resort in order to render themselves incapable of childbearing.

The infectious matter engendered by the unnatural sexual intercourse between the human and the brute creature, is more or less venomous according to the greater or less dissimilarity between the organization and, consequently, the natural food of the human

eres hebræas postquam celebraverunt coitum cum entibus, «quorum genitalia sunt ut genitalia asinorum, et effusio seminis ut caballorum» — tum certe interpretes hic, ut tam multis aliis locis, verba autoris inverterunt, modo dicentes: mulieres judæas ut caballos vel asinos libidine inflammatas fuisse.

Hæc prava verborum interpretatio, ut videtur, orta est ex loco legis capitalis, quæ jubet: «Facinora ostendi, dum puniuntur, flagitia autem abscondi debent»,

Præterea in scriptis juridicis Hebraicis atque Syriacis plura loca inveniuntur, quæ pœnam capitis addicunt iis, qui crimen bestialitatis patrant, nec non iis, qui cum corporibus exanimatis coeunt. Ita recordor me anno ætatis meæ quindecimo vidisse legem ab Herodoto relatam, quæ jubet: cadavera formosarum puellarum demum post biduum tradi debere polytechnicis, qui eo tempore mortuos condierunt, nam legislatores experti erant, cadavera stuprari.

*) Huc etiam pertinet, quando sermo est de morbis venereis, quod contemporanei nostri morbo syphilitidi, qui a σους (sus procus) et Φιλία (amicitia, amor) derivatur — nomina pulcherrima et nobilissima imponunt ad excusandam quasi vel tegendam fœditatem hujus morbi. Ex mea sententia rectius et veritati propius esset derivationem sequi, ita tamen, ut **amor** primo, **sus** autem secundo loco ponatur.

animal and the brute beast whereof there is question, as, also, by the greater or less violence of the unnatural irritation which the consummation of that crime occasions. Thus as the natural food of man differs less from the natural food of the dog than from that of the ass, the poison engendered by copulation between a human being and a dog is not so virulent as that which is engendered by the perpetration of the like atrocity between a human creature and an ass, to which last manner of sinning against Nature Cholera-poison owes its origin.

I have remarked above that Cholera, for the most part, follows the world's great highways over land and over ocean. On this its progress it visits first the great cities and, when newly broken out, rages worst in the most filthy and crowded courts and alleys where destitution and recklessness rule the dregs of civilization.

Just in haunts like these vice has its deepest roots.

The primary cause of Cholera is *crimen bestialitatis*, or human creature's sexual intercourse with brute beasts, especially with asses, horses, camels and other herbivorous animals. Although not confined to the East, this crime is more common in those lands than in any other part of the world, and during the great religious festivals, such as the feast of Baïram in Mecca, where multitudes from all parts of the earth, together with legions of camels, asses, mules and horses are gathered together, this abomination knows no bounds.

As well during the pilgrimage as afterwards in this promiscuous gathering*), the greatest licentiousness is

*) When we have to choose between several evils, without having the option of evading them all, we choose the least: And thus to prevent, as far as lay in his power, rape, onany and *crimen*

indulged in and unbridled concupiscence riots and gluts itself with deeds too revolting to be described.

Even as in Chemistry by the conjunction of various different substances a new substance or composition is produced which has no seeming affinity to any one of the various substances of which it is compounded, even so is Cholera-venom a product of such a conjunction, or, to speak more accurately: various circumstances combine to cause that fermentation, which is necessary for the Germ of Cholera, which has its seat only in the genitals, to become an actual Cholera venom. This fermentation or, more properly, this putrefaction, as, according to the ancients, „putredo habet vim fermentativam“ is facilitated by the Indian climate and maintained by the concupiscence of which we have spoken, especially by the vice so general throughout the East.

To repeat my postulate: crimen bestialitatis is the cause, and the only cause of Cholera, while the Cholera-venom itself is generated only in the sexual parts.

Absorption of the venom thus generated, takes place during the act of natural copulation or else by coming in contact with the virus in some such manner as I have denoted above.

The effect of the venom is analogous to that of

bestialitatis, the Roman Germanic Emperor Albrecht enlisted 800 girls of loose life to follow his army. The same motive induced the engagement of 718 prostitutes to attend the council of Cosnitz.

The following enactments may serve to give us an idea of then rudeness of those times:

„Si quis liberam fœminam per verenda ejus comprehenderit“ and again: „Si indumenta super genua elevaverit“, and many similar laws, which I need not quote.

the poison of venomous serpents, as is shown by the dissection of the bodies of those who have died of Cholera; but with regard to the way in which the venom takes effect, there is this difference: that while the serpent's poison acts directly on the blood without any medium, the Cholera-poison acts on the blood through the medium of the mucous membrane.

As every colder body is, for reasons we will not dwell on here, more disposed to absorb warm matter than a warmer body is, it is natural that fear, anxiety and every other depressing influence facilitates absorption of the warm venom, which absorption often takes place with such rapidity that the blood is congealed, at once, in the very first stage of the disease and the patient is struck down with sudden death.

Cheerfulness, mirth and pleasurable impressions exert a contrary influence and have therefore a beneficial effect.

When the venom has come in contact, either direct or indirect, with any part of the human frame capable of absorbing it, if it be not immediately washed away, and the part or membrane susceptible of infection purified perfectly, the disease will infallibly after a longer or shorter period break out.

I have however known of women being purged of the infectious matter by menstruation; while men who are circumcised or have a natural paraphimosis are less liable to harbour the virus than those under whose præputio it can lurk concealed.

The moment the disease breaks out, the contagious power of the venom is neutralized by reaction, and from that moment no infection can be imparted any more, neither by contact with the patient's person nor by touching nor inhaling anything coming from him.

Finally let me state, that I am positively convinced that persons of both sexes as well as animals and birds may be so slightly infected with Cholera, that the disease after an hour or two exhausts itself and disappears without leaving any serious trace.

The result of the above is this:

1. That the primary cause or germ of Cholera is engendered in the genitals by crimen bestialitatis.
2. That this germ by a combination of circumstances which are especially found occurring in India, becomes the infectious-matter of Cholera.
3. That this infectious matter can be carried to all parts of the world, and imparted to every one whose mucous membranes come in contact with it.
4. That the Cholera-patient, after the disease has actually broken out, is incapable of imparting infection to others by any manner of contact whatever, either direct or indirect.

If this my theory be founded on truth, as my manifold investigations and experiments on human beings and many kinds of beast and birds have convinced me, we have at least arrived at that point whence we can discern the way by which we can escape this disease; and I am perfectly assured that the Asiatic Cholera, certain precautionary measures being adopted, would never pass the frontiers of its Indian home, at all events not as an epidemic; and that it might, even in its native country, be reduced to utter itself as a sporadic or endemic sickness.

It has been already observed that Cholera in its progress visits first the most densely peopled places, and there attacks especially at first, the lowest classes of **society**.

Even this confirms the truth of my theory, for those who catch the infection, especially in the beginning of such an epidemic, in a great city are persons whose gains are dependent on a conflux of people, and such persons familiar with vice in every shape seek in preference such courts and alleys that are farthest off from all that is respectable; and there in those obscene haunts of prostitution, concupiscence drives its beastly votaries to deeds too loathsome to be conceived by a healthy mind. Such haunts are so many centres of infection from which contagion goes out in all directions like radii from the centre of a circle.

It may be asked: how can it be accounted for that animals, that have so great a share in generating the germ of Cholera, are so seldom infected and so rarely die of that disease?

To this I reply: that different animals under such circumstances generate different kinds of poison. It is well known that many animals, especially domestic animals die during a Cholera-epidemy and many of these die suddenly — witness the great mortality among the renowned pet-cats of the Zuaves: But it is seldom investigated whether such deaths are the effect of Cholera or of some other disease that accords with the different organizations of the different animals. It may however be regarded as a certainty that such mortality among animals during such an epidemic is the effect of Cholera-poison imparted in some such way as it is imparted to human beings.

If we turn to the vegetable kingdom, we find many analogous examples all tending to corroborate the justice of this theory.

It was thus ascertained, a few years ago, that when a hedge of Barberry — *berberis vulgaris* — is

growing within some hundred yards of a field of Rye — *secale cereale* — that the latter is invariably attacked with gangreen, this disease being caused by the pollen of the Barberry bushes mingling with the pollen of the Rye, this unnatural mixture of seed bringing about a result analogous to that caused by the unnatural sexual intercourse between animals of different genera, namely the production of an infectious poisonous matter. This destructive corn-disease was not put an end to until every Barberry bush within miles of the Rye crops was rooted up.

Were all guilty of *crimen bestialitatis* served like these Barberry bushes, there would soon be an end of Cholera-infection.

To avoid infection under a Cholera-epidemy, care must of course be taken not to come in contact with the infecting-matter; but as this virus is utterly devoid of infectious power in the person of the Cholera-patient, it is only the seemingly healthy from whom the contagion is to be apprehended. Above all things carnal connection should be avoided under such an epidemy, especially with strangers. And knowing that the infection can be transmitted by indirect means also, great caution should be used with regard to all the eventualities noted above by which the poison may be communicated.

Though cleanliness and regularity in daily life are the first conditions for the preservation of health at all times, the very reverse of these virtues exercise no decided influence for or against our being infected with Cholera, and can as little serve to account for a man's being attacked with that disease as the circumstance of having sate on a chair on which some one suffering under venereal disease has sate before, can serve to

account for a man's being infected with syphilis. Nay, even the fact that a healthy and vigorous constitution founded on and supported by a well-regulated way of life, is ever most capable of withstanding sickness of every sort, can not in the case of Cholera be regarded as having its usual weight.

With respect to the greater or less degree of mortality under a Cholera-epidemy, experience has shown, that among weakly and debilitated persons only 30 in every 100 cases prove fatal, while 50 per cent of the robust and strong who are attacked, succumb under the disease.

This great disparity can indeed often be traced to the nature of the disease and the treatment to which patients are commonly subjected: But the chief cause is in reality this, that in general robust and vigorous persons are more inordinate in carnal pleasure than those who are less favoured by nature. The same is the case with those addicted to strong drink, as also with such as are weakened by excess in sensuality, these being longer in gratifying their lasciviousness than is natural, and being thus exposed more than others to absorb the poison*).

I will farthermore remark that the ascertained fact of Tuesday being, of all other days of the week, that which presents the greatest number of cases of Cholera

*) Ad eandem persvasionem pervenire potest is, qui e loco occulto videt, quomodo quinque vel sex, vel etiam plures personæ, haud raro inebriatæ, unus post alterum, crimen bestialitatis patrant cum uno eodemque asino, qui adeo sæpe plures dies continuo ad eundem usum adhibetur, pro quo usu possessor etiam interdum mercedem postulat.

This can account for India being the source of this horrible disease.

with us in Europe, is simply to be accounted for by the circumstance, that most young men of the working class are free to spend Saturday evening as they please, and use their freedom in visiting loose women, in whose society they then gain the contagion, which in accordance with the nature of the disease, especially in the beginning of a Cholera-epidemy, generally breaks out about 48 hours after its being absorbed.

In like manner can we account for Saturday being that day on which fewest cases of Cholera occur.

If during such an epidemy one feels conscious of having exposed oneself to contagion, one must, by constantly bathing the parts susceptible of absorbing the venom, do one's best to stop the working of the poison or to wash it away. Such baths should always be as warm as the parts can bear; for if the venom be already there, cold will cause the organization to absorb it, often suddenly, making the disease break out. And as no one can be perfectly certain during such an epidemy of not having indirectly contracted the contagion, it is best during such a period to wash the nose and mouth and privy-parts very frequently every day with the following lotion: Aqua mercurialis, aqua chlorata" or „eau psorique": and according to my experience it is most efficacious that this lotion be so strong that it cause a slight irritation of the parts in question, whereby a beneficial warmth is imparted, which hinders the absorption of the venom.

It is evident that this theory of the cause of Cholera inculcates the expediency of adopting measures for the prevention of contagion, very different from those enacted or enforced by any existing system of Quarantine whatever; and, though not specified here, the principles on which a system adapted to

the purpose for which it is established might be set agoing, are clearly enough indicated in the above pages.

And now, having laid the foundation of the building, I leave it to younger and abler architects to complete the superstructure.

POSTSCRIPT.

If any has expected in the above pages to find a treatise on Cholera, setting forth what treatment of that malady I regard as most efficacious, I beg to remark that such is in no ways in accordance with my purpose. My method of cure being totally dissimilar to any hitherto practised and taught by „the faculty“, it would take more time than I can dispose of now to detail it and set-forth the grounds on which it is founded. My problem was to find the primary cause of Cholera and of other infectious epidemic diseases named in the above pages.

This little work would not have seen the light, at all events, not now, if I had not heard that Napoleon III is desirous of gathering all the information possible to be found regarding this subject, and with this view has summoned an international conference to assemble in Constantinople.

His wish is to me a law, which I do my utmost to fulfil, even though I, by so doing bring upon myself in my old age sufferings as painful and as trying to body and to mind as those I, in 1813, endured on account of my enthusiastic attachment to Napoleon I.

I am well aware, that he who presumes to come forward with anything of which the scientific world

had previously no idea, exposes himself to the Faculty's despite and contumely: But, being convinced that truth must conquer at last, I know I shall have my reward in the consciousness of having aided in gaining the victory.

And, lastly, I claim the friendly reader's forbearance for the fragmentary character of this little work, seeing that it is written by a man of 77 years of age during a journey, far from his books and his own quiet home. The subject itself necessarily involves questions which may shock those who do not reflect, that, even as there is no life without death, so is there no death without life.

Copenhagen, in May 1866.

Axel Frederick Lassen,

Sletterød by Odensee,

Fyn, Denmark.



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