

On hydrophobia, its prevention, and cure. With a description of the different stages of canine madness: illustrated with cases / by Benjamin Moseley.

Contributors

Moseley, Benjamin, 1742-1819.
Royal College of Physicians of Edinburgh

Publication/Creation

London : printed by T. Bensley for Longman, [etc.], 1808.

Persistent URL

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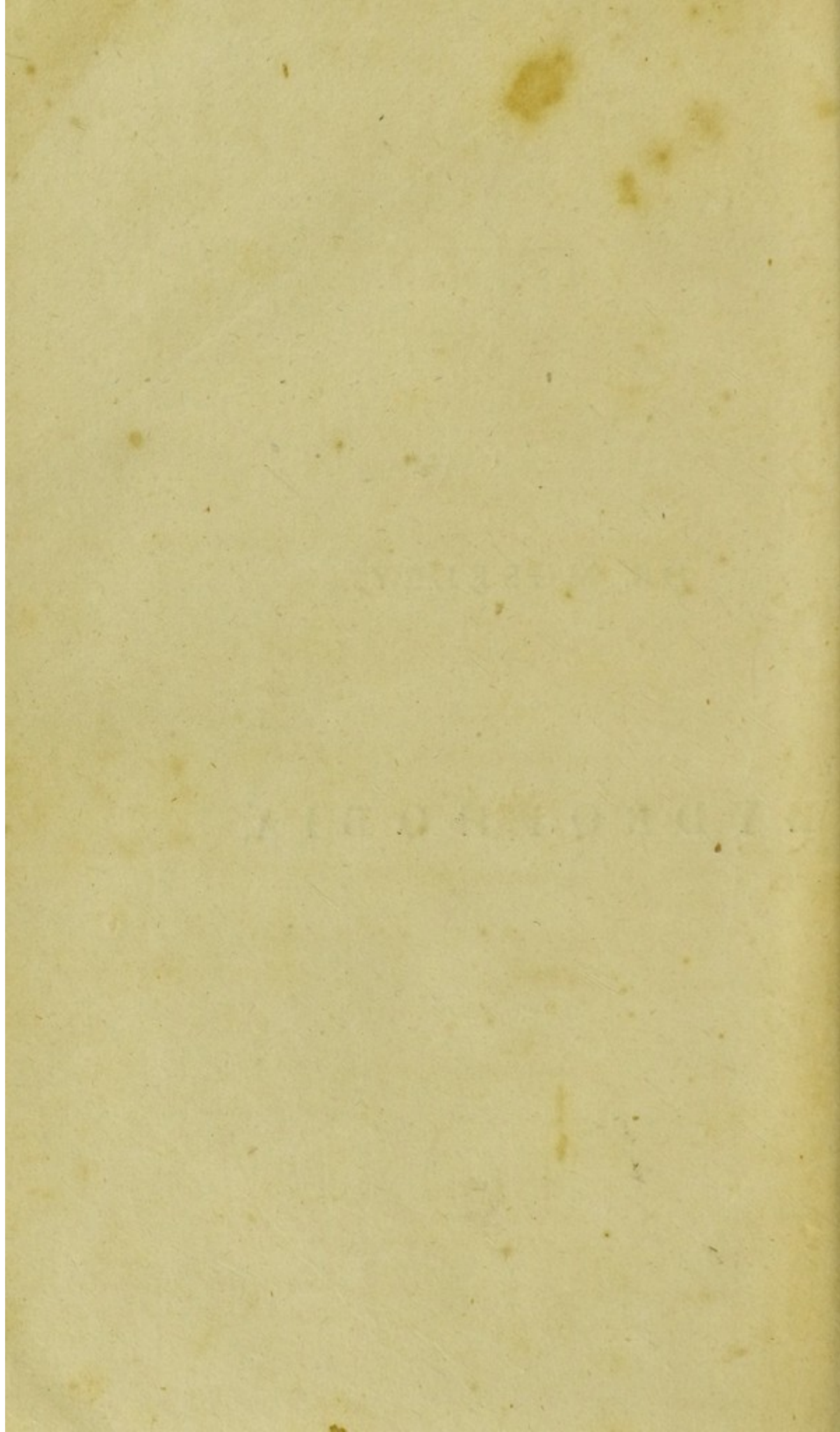


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DR. MOSELEY

ON

HYDROPHOBIA.



ON
HYDROPHOBIA,
ITS
PREVENTION,
AND
CURE.

WITH A
DESCRIPTION OF THE DIFFERENT STAGES
OF
CANINE MADNESS:

ILLUSTRATED WITH CASES.

By *BENJAMIN MOSELEY, M.D.*
PHYSICIAN TO HIS MAJESTY'S ROYAL MILITARY HOSPITAL AT
CHELSEA, &c. &c.

LONDON:

PRINTED BY T. BENSLEY, BOLT COURT,
FOR LONGMAN AND CO. CADELL AND DAVIES, J. WHITE,
T. PAYNE, EGERTON, CUTHELL AND MARTIN, FAULDER,
HIGHLEY, RIDGWAY, AND CALLOW.

1808.

ON
HYDROPHOBIA

THE
PREVENTION

AND
CURE

OF THE
DIFFERENT
FORMS

OF
CANINE
RABIES

ILLUSTRATED BY
W. H. C. C.

BY
BENJAMIN MOORE, M.D.

OF THE
NEW YORK
HOSPITAL

LONDON

851.560

ON HYDROPHOBIA.

THE Epidemical rage of Canine Madness in England for two years past ;—its present prevalence,—and fatal effects experienced of late by the human race, induced me to give as much publicity as possible, to the three following Essays. The *Morning Herald* was the vehicle I selected for the purpose.

The demand for that popular Daily Newspaper, containing these Essays, was great ; and the numbers printed, though great, were inadequate to the demand. Many hundreds of people, who wished to obtain an impression of one, or more of them, were disappointed.

On this account I have been solicited to reprint these detached Essays ; and to publish them all together.

This must be my apology for the method in which they make their appearance.—But the exigency of circumstances may also plead in

my favour. Acts devoted to public good, in times of danger, rise above all forms ; and are paramount to all personal considerations.

The two Cases of Hydrophobia will, in many minds, occasion the deepest reflection.

It may seem incredible to some people, that there has never been an accurate description of Hydrophobia, and a succession of the symptoms of Canine Madness, before given to the world.

It does not appear satisfactorily, to the learned, that any writer on this malady ever saw its whole train of evils. The ancients, like the moderns, describe, and prescribe, in their way ; but not one among them even pretends to have seen Hydrophobia, with Rabies in all its stages.

Some of the moderns assert, they have witnessed the dreadful scene ; but their own evidence is against them. BOERHAAVE is bad ; MEAD worse ; and the rest, with very few exceptions, are contemptible.

It has been a theme for theoretic Physicians ; a metaphor for Poets ; and a fable for Historians.

There can be no doubt that many people have seen the disease ; because many have perished by it. But it may be asked, what are these Spectators' descriptions, and their details of practice ?

Hydrophobia, from the bite of a Mad Dog, has ever been deemed incurable.

OVID remarks, that Hydrophobia and Gout, are not within the reach of medicine*.

CELSUS considers Hydrophobia as an hopeless misery†. The only remedy, he says, is plunging the patient unawares, into a cold bath; and there half drowning him. I believe CELSUS, who first mentions this process, never tried it. He knew, and mentions, the dangers of it. Yet this has given rise to all the erroneous notions, concerning cold bathing, as a *preventive* of Hydrophobia.

SCRIBONIUS LARGUS is of opinion, that no person was ever relieved from it‡.

PLINY asserts, that (before his old woman's dream that her son was to be cured of the bite of a Mad Dog, by the root of the *Dog Rose*) no person was ever cured of Hydrophobia§.

ORIBASIUS||, and PAUL ÆGINETA¶ maintain, that it is a mortal disease.

* Tollere nodosam nescit medicina podagram,
Nec formidatis auxiliatur aquis.

Ep. ex Ponto, lib. i. ep. iii. 23, 24.

† Miserrimum genus morbi; in quo simul æger et siti et aquæ metu cruciatur. Quo oppressis, in angusto spes est. Lib. v. c. 27.

‡ Nemo adhuc, correptum hoc malo expeditus est. *De Comp. Med.* lib. c. xlv.

§ Insanabilis ad hosce annos fuit Rabidi Canis morsus, pavorem aquæ, potûsque omnis afferens odium. *Nat. Hist.* lib. xxv. c. 2.

|| Ex iis verò qui a Cane Rabioso morfi fuissent, servatum esse neminem. *Synop.* lib. viii. c. 13.

¶ Cæterum eorum qui in hanc affectionem inciderunt, nullum sanatum esse. *De Re Med.* lib. v. c. 3.

ORIBASIIUS (from APPOLLONIUS PERGAMENUS,) PAUL ÆGINETA, and many others, mention Hydrophobia, or an horror at the sight of water, from other causes; but as a curable, and simply nervous affection:—which we all know it is. Some modern authors speak of its appearance in fevers that have been fatal. CÆLIUS AURELIANUS makes mention of spontaneous Hydrophobia*. This also is an old story in physic.

Some writers fancy they can retrace Canine Madness to HIPPOCRATES; and some even to HOMER. CÆLIUS AURELIANUS, who complains that the ancients knew no cure for Hydrophobia, among others, was of this opinion†. But not one word either in HOMER, or in HIPPOCRATES, I am certain, will be found to justify them.

The epithets given to Hector, in HOMER, which have puzzled, and misled conjecturers, mean nothing more than that his violence resembled insanity‡; and his fury rendered him like an enraged Dog§. As to HIPPOCRATES, he only says that phrenitic patients, drink-

* Est præterea possibile, sine manifestâ causâ, hanc passionem corporibus innasce. *Acut. Morb.* lib. iii. c. ix.

† *Acut. Morb.* lib. iii. c. 15. & c. 16.

‡ Κρατερη δε ἐ λυσσα δεδυκεν. *Il.* ix. 239. Ὁ λυσσωδης, *Il.* xiii. 53. Λυσσα δε οἱ κηρ. *Il.* xxi. 542.

§ Κυνά λυσσητηρα. *Il.* viii. 299.

ing but little, are affected by any small noise, and are subject to tremors, — or convulsions*.

ARISTOTLE, who lived nearly a century after HIPPOCRATES, and more than six centuries after HOMER, is the first who mentions the Rabies in Dogs. But in such a way, as to prove, that the disease was not understood in his time; or that it was a different kind of Rabies, from that in our days,—if there have been no corruption in the text. For he remarks, that the human race was not affected by it †.

He says—“Dogs are subject to three diseases; —the Rabies; the Angina; and the Podagra. The Rabies causes madness in Dogs; and all animals they then bite have the Rabies, excepting Man. This disease kills Dogs, and all that are bitten, excepting Man ‡.

The cause of this surprising disease in the Canine species, is not better understood, after a lapse of more than two thousand years, than its Nature, and treatment are, when commu-

* Οι φρενιτικοί βραχυποταί φοβού καταπτομένοι, τρομώδεις, — ή σπασμώδεις. *Prædict. lib. i. 16. & Coac. Prænot. 98.*

† Πλην ανθρωπου.

‡ Οι δε κυνες, καμνουςι νοσημασι τρισιν. ονομαζεται δε ταυτα, λυτία, κυναίχη, ποδαγρα. Τούτων ή λυτία, εμποiei μανιαν και όταν δακη, λυτίωσιν απαντα τα δηχθέντα, πλην ανθρωπου. αναιρει δε το νοσημα τουτο τας τε κυνας και ό, τι αν δηχθη υπο λυτίωσης, πλην ανθρωπου. *Hist. Animal. lib. viii. c. 22.*

nicated from the original source, to the human frame.

Almost all writers consider madness in Dogs, to arise from thirst; or from the heat of Summer, particularly during the Dog Days. Ignorant people suppose it never happens without infection, from one animal to another; by bite, or otherwise.

ÆRIUS is of opinion, that Dogs are most subject to it, in those countries, where there are the greatest changes and inequalities of the atmosphere;—where the cold in winter is extreme; and the heat in summer excessive*.

VIRGIL, though not a physician, speaks more like a philosopher, and comes nearer the mark, than any physician who has hitherto written expressly on the subject. He classes Canine Madness among the distempers of sheep, and cattle; brought on by a pestilential state of the air†. VIRGIL's instance indeed is stated from a particular plague; which, during the raging heat in Autumn, contaminated the waters, poisoned the pastures, and almost exterminated every kind of animal.

A general history of Canine Madness does not come within my present view. Such an history is much wanted; as improvement in the

* *Tetr. ii. Serm. 2. c. 24.*

† *Hinc Canibus blandis Rabies venit. Georg. lib. iii. 496.*

treatment of this greatest of all human miseries, can never take place, until the medical superstition and ignorance, with which it is involved, shall be properly exposed; some hope established; and all reliance on nostrums and pretended cures totally destroyed*.

The wretched in this disease,—are wretched indeed. Consigned, by custom, to a refuge where they are deceived, robbed and murdered.

Another misfortune to humanity is, that since the separation of Physick and Surgery into distinct professions, every Physician, and every Surgeon, are not qualified to undertake complicated Cases,—such as wounds from rabid, and venomous animals, with their consequent diseases.

* Athes of burnt River Crabs was a great remedy with the Ancients for the bites of Mad Dogs. GALEN wonderfully extols their virtues. The following he says is infallible: Take—Frankincense* 1 part; Gentian Root 5 parts; and burnt River Crabs 10 parts; all made into a powder. The dose is a table spoonful; to be given once a day, for forty days. *De Simp. Med. Fac. lib. ii. Περὶ καρκινῶν κεχαυμένων.*

Another celebrated Antidote, was that of APULEUS CELSUS; prepared of Peppers, Aromatics, Gums, and Opium. It is described by SCRIBONIUS LARGUS, *De Comp. Med. Lib. cap. xliii.*

These two compositions, with different Boles or Earths, substituted for the calcined River Crabs, are the bases of all the formulæ, since the times of their respective authors.

* Λιζανωτος.

A Surgeon now, is supposed to know as little of phylic as possible; and a Physician is supposed to understand about as much surgery. What then must be the fate of a Patient, in the hands of either, who requires the utmost aid of both?

Hence it is, that the knowledge of Hydrophobia, and the treatment of the bites of Mad Dogs, in particular, have not advanced with other improvements in medicine. They are as ill understood, as they were in the time of CELSUS; nay worse; because CELSUS was as renowned in Surgery, as in Physick:—and his method is not without great design in both.

Many physicians of long standing, and of great learning and experience, have never seen Hydrophobia; and many believe it never existed.

In the following pages will be found a faithful description of all the general symptoms of Canine Madness, in the human frame; with a new, plain, and correct statement of the different stages of the disease; and an instance of successful treatment of Hydrophobia. The two Cases, illustrating these facts, were seen by many people.

The subjects of these Cases, are not the only patients I have had under my care for the bites of Mad Dogs, within the last few months. I wish they were. It is well known I have had
many;

many; and have cured them. That is, the Hydrophobia has been prevented; and by the methods chiefly explained—circumstances and constitutions varying—in the following Papers.—I have now several under my care.

Hèrè I observe, that every person, or animal, bitten by a Mad Dog, is not always susceptible of the infection. It is the same in respect to Small Pox virus. The habit may be in a state not to receive it. I have known men, cats, dogs, hogs, and sheep, bitten by Mad Dogs, where no remedies whatever have been used, remain perfectly well; when persons and animals, bitten at the same time, by the same Dogs, have died mad.

This practical fact, denounces the dangerous opinion, that Dogs are often supposed to be mad, when they are not. This accounts also, for the credit, which the most absurd compositions have acquired for curing the infection of Canine Madness, where it never existed.

With these preliminary observations, and without comment, the following Essays are again offered to the Public;—the last with some important additions.

CASE I.

ON Monday afternoon, at three o'clock, the 9th of November, 1807, Mrs. METCALFE, No. 25, Compton-street, brought her son, Mr. FREDERIC MICHAEL METCALFE, to me for advice, at my house in Albany, Piccadilly.

He informed me, that he was attacked about four o'clock the preceding morning with a difficulty in swallowing any liquid, which he first perceived when he attempted to drink some porter, the remains of half a pint, which he had on Saturday evening.

He said, when he put the pot to his mouth, something rose in his throat, and choked him. He swallowed, as he thought, about a tea-spoonful, and then was seized with a trembling, and cramp in his arms and legs, and a sensation of pricking, as if pins or needles were run into his flesh.

His appetite failed him on Saturday. On Sunday he ate a small piece of mutton, which made him sick at his stomach. He had eaten nothing on Monday, the day he came to me; though he said he could swallow any thing, except it were in a liquid form; but had no desire for food.

He

He said he was attacked on Thursday last with a violent pain in his right arm, from his shoulder to the ends of his fingers. This pain left him on Saturday night. He rubbed the arm with hartshorn and oil, and wrapped it up with flannel, on Saturday.

Mrs. METCALFE informed me, that on his seeing any liquid poured out for him to drink, even before he took hold of the pot, or cup, he began to tremble, and the choking seized him. She said, in attempting to drink, he became convulsed, his eyes looked glassy, and he stared in an unusual and frightful manner.

The CASE thus clearly demonstrated, I desired Mrs. METCALFE to go with me into another room. I did this that I might not alarm her son, by questions necessary for further information.

Neither Mrs. METCALFE nor her son had the slightest suspicion of the cause, or the nature, of this dreadful calamity.

I asked Mrs. METCALFE whether her son had been lately bitten by any Dog? The very question so much alarmed her, that she was for a few minutes in a state of distraction. When she was able to speak, she exclaimed, with a loud shriek, that he had been bitten in the hand by a Dog in the summer. As soon as she became calm and composed, we returned to her son.

On interrogating him, he informed me, that in the beginning of July last, there were two Dogs fighting desperately in the street opposite his mother's house; and he observing one of them had one of his eyes torn out, and the other Dog likely to kill him, endeavoured to part them; but on taking hold of the Dog he wished to rescue from the fury of the other, he received a bite from him on his right hand.

Two of the Dog's teeth penetrated the outside of the hand, but the palm of the hand was considerably wounded. This wound was dressed with Friar's balsam, and poulticed, and was cured in a week or ten days.

I examined his hand.—There was a small degree of redness remaining, but no heat, or pain, where the wound had been in the palm of his hand; and no vestige whatever on the outside where the teeth had been.

There was nothing observable in his throat, differing from its natural state; nor any increase of saliva.

Pulse 88, rather feeble, and not quite regular. He had no thirst.

He told me his choking seemed to him as arising from wind; and that he always discharged a great deal from his throat, whenever he attempted to swallow.

He said he took some Dill-seed water the
night

night before he came to me, and thought it relieved him; but never could get down more than a tea-spoon-ful at a time, and that with great difficulty. In one attempt to swallow some of this water, he was so choked and convulsed, that he would have fallen into the fire, his mother told me, if she had not saved him.

I gave him some water in a pint-pot twice; each time he swallowed about a tea-spoon-ful, and both times was choked, and convulsed, with a wild staring in his eyes, and a trembling all over him; and immediately after the effort of swallowing, he made an hideous noise.

The second time I gave him the water, I was much alarmed; I thought it would have occasioned a fatal convulsion.

It is impossible to describe a sound; and I can compare the noise he made, which was from repeated spasmodic contractions of the organs of respiration, to nothing but to that sort of stifled barking which Dogs sometimes make, when disturbed in their sleep; or to the hoarse, short barking of a Drover's Dog.

When he took the pot in his hand, he fell into a tremor, held down his head, and was in great distress; he kept it in his hand a few seconds before he could summon courage to lift it to his mouth; after which I took it from him, as from his agony he could not hold it.

He

He bore the sight of the water in the pot, while it was in my hand, when it was not offered him to drink ; but when I brought a large basin filled with water, and put it before his eyes, he seemed frightened ; and when I agitated the water near him, he was instantly attacked with what he called “ *the wind rising in his throat,*” trembling, and that hoarse, faucial noise before-mentioned.

He entreated me not to order any medicine for him in a liquid form, as he said he could not take it ; and the attempt, he was certain, would kill him.

He said he could swallow any solid substance. I put this to the proof ; and, as he had been costive for several days, I gave him four aperient pills, which he swallowed one at a time, but with some difficulty.

He had now been with me three quarters of an hour, when he and Mrs. METCALFE left Albany, with the best advice I could give, and walked back to Compton-street.

From his appearance, and conversation, no person would have thought there was any indisposition about him. His voice, and speech, had suffered no alteration. He was in the eighteenth year of his age ; a very fine youth in mind, as well as in person.

His humanity here was his misfortune.

With what grief did I see him depart from
Albany

Albany with his poor mother, knowing, as I did, that he had but a few hours to live !

I visited him in the evening. Pulse 110, and very feeble. I gave him some barley water. In attempting to drink, the usual consequences,—choking, wildness in the eyes, and the noise in the throat, followed.

The pills operated about nine o'clock, several times.

About ten o'clock he became so violently convulsed, that four young men, his brothers, could scarcely keep him in his bed ; but he made no attempt to bite any person. He began also to spit, and foam at the mouth, with white froth. The quantity of this froth was so great, as to require many towels and handkerchiefs, in wiping it from his mouth.

At this period he likewise became delirious at intervals, but at times was in his perfect senses ; and complained, though in a very warm room, of being cold, and begged to be kept warm.

In this condition he continued until one o'clock on the following morning ; when, from his violent convulsive exertions and struggling, he was entirely exhausted, and remained calm and quiet afterwards.

He expired at a quarter before two ; eighteen weeks from the time of the accident ; forty-six hours from the commencement of the HYDROPHOBIA ; and ten hours after I first saw him.

CASE

CASE II.

SUCCESSFULLY TREATED.

Mrs. HANNAH LACASE, aged 30 years, No. 32, Rupert-street, came to me at Albany, in the afternoon of the 15th of December 1807, for advice, having been bitten by a Mad Dog. She informed me that—

On Tuesday evening, the 1st of December, she saw a little Dog on opening the street-door, at the threshold, trembling, as if suffering from cold. She let him into the house, and put some bread and milk before him, of which, she thinks, he ate a little.

On Wednesday, the 2d, he took no notice of food, and seemed stupid; and slept all day under the tables and chairs.—One of his eyes appeared blind. He had a running at his nose; and was paralytic in his loins, and dragged his hind-legs after him. She carried him into her room, when she went to bed. About midnight she heard him tumbling on the floor; and he continued in that disturbed state until morning.

On Thursday, the 3d, she rose early; and while she was lighting the fire, the Dog ran at her, and snapped at her right leg, and tore the stocking. In putting him away with her right hand,

hand, he seized her little finger in his mouth, and made two small punctures near the end of it, with his teeth. He died an hour afterwards.

The punctures, though small, must have been deep, or the poison greatly virulent ; as she said, the pain in the finger, for two hours, was excessive. When the severity of the pain abated, a sensation came on, like the pricking of pins ; which continued for about a quarter of an hour, and then ceased.

On Friday, the 4th, the pain returned in the finger, and continued for about an hour. After an interval of three days, it returned again, and remained for a little time.

On Friday and Saturday, the 11th and 12th, she was attacked with a numbness in the finger and hand ; with some pain, which advanced to the elbow. The numbness and pain went off in about ten minutes, each time.

In the course of her sufferings, she went to a very respectable Surgeon, who proposed to have the bitten part removed ; but she objected to it.

On Tuesday, the 15th, being very ill, she came to me. The numbness and pain, which she experienced on Friday and Saturday, returned this morning. Her whole hand was suddenly affected, while she was blowing the fire, and the use of it almost entirely taken
c away.

away. The bitten finger became livid, but the lividness disappeared in an hour or two.

When she came to me, her hand was quite stiff; the finger was hot, and in much pain. She was in great perturbation of mind and body. Her eyes were glassy and inflamed. She sighed almost continually. Her whole nervous system was extremely affected. Pulse 120, weak, and irregular. No thirst. Nothing remarkable in the throat. She said her dreams, for several nights before, were shocking; that on the preceding night she could not remain in bed; but got up, put on her clothes, and went down stairs, fancying the house on fire: and that her head was distracted with a noise, which seemed to her like the rattling of coaches.

I offered her some water; but could not prevail on her to attempt to drink it. She said she could not; and was seized with a trembling. She had no difficulty in swallowing any liquid, notwithstanding, as was afterwards proved. I then brought a pewter basin filled with water, and slopped it about before her; but on much agitating the water, and pouring it out of the basin into a pewter pot, and from thence back to the basin a few times, she looked at it with horror, and was so distressed, without having any idea of my motives, that she begged I would take it away, or that she could not stay in the room.

When

When appeased by the removal of the water, after this experiment, she told me, that in the morning, as she was drawing some water from the cistern in the yard, she was seized with a trembling, giddiness of the head; and terror, at the sight and noise of the water running into the pail. She was ignorant of the cause.

I knew from woful experience, what mischief was at hand. But knowledge without promptitude, like promptitude without knowledge, here, is of no avail.

I desired her to go immediately home, and to go to bed.

I should have had doubts of the utility of applying my usual caustics, *Butter of Antimony*, and *Lapis Infernalis* (the cure in recent cases), to the bitten parts, which were healed in three days after the accident, and had now no other visible remains, than two small indentations of the skin—but that the state of the finger and hand shewed the virus was still active in the parts adjacent to the original wounds. Therefore I removed the skin where the wounds had been; and instituted a drain, which was continued through the whole process of treatment.

At five o'clock in the afternoon, I had an ounce of *Unguentum Mercuriale fortius* well rubbed in by herself, about her neck, throat, thighs, and legs. I then gave her the following draught,

draught, with directions to promote perspiration every way possible.

R. *Julep. à Camphora*, ℥ij.

Spt. Volat. Aromat. ℥i.

Rad. Valerian. recent. pulv. ʒss.

Misce.

This draught was repeated every four hours.

I visited her in the evening, and found her in a great perspiration; pulse 112, small, and tremulous. She had some sleep after the friction and draught. The sighing, terror, and dread of water, still remained. When the door was shut with some noise, she started up in bed much frightened. She could not bear the light of a candle in her chamber. I asked her why? She said it appeared to her like the light of twenty candles, and distracted her head. I ordered the mercurial friction to be repeated at five o'clock the next morning.

On the 16th I visited her in the forenoon. She had perspired profusely during the whole night, and slept at intervals. Her breath was already very offensive, and her gums sore from the two frictions, within the space of nineteen hours. Pulse 96, but irregular; all symptoms abated. I ordered the draught to be continued, and a repetition of the friction at five o'clock in the afternoon. I visited her again at nine o'clock in the evening. She had perspired considerably

considerably all the day. Her gums were much affected by the mercury, and the saliva began to flow plentifully. I ordered the draught to be continued, and the friction to be repeated at five o'clock the following morning.

On the 17th I visited her about noon. The mercury had disordered her bowels in the night; and brought on tormina and bloody stools. Thus, the salivation was checked, and the draught necessarily discontinued.

The evils being removed, the salivation returned in the most extensive manner, and continued until the 29th, when it began to abate, declined gradually, and ceased.

Four ounces of the ointment, all that was used, were rubbed in, and completely so, at four frictions, within 48 hours.

She is now in perfect health, and I am under no apprehension concerning her safety.

This is the only case of complete Hydrophobia, from the bite of a Mad Dog, successfully treated, on record.

But in this case, the Hydrophobia was recent, and timely discovered. The dyscataposis, or difficulty in swallowing, and the choking, had not began their dreadful parts of the tragedy. A few hours more would inevitably have produced them. Then all hopes would have been cut off from any advantage by internal remedies, which are now of the utmost

auxiliary importance, in preventing, what can never be cured—these direful precursors of the fatal Rabies.

It is my practice, and I recommend it to others, when called to patients bitten by a Mad Dog, to try them immediately, and from time to time, with water, in the manner above related, in order to detect, as early as possible, the Hydrophobia; or first decided symptom produced by the poison of a Mad Dog.

Had I not done so in this case, the patient would have been lost. A few hours more elapsed, there would have been no possibility of exhibiting medicines internally; and the period between the second stage of the disease, and death, is so short, that there is no time for external applications to find their way, effectually, into the system.

I have known several instances, two of which lately occurred in the neighbourhood of Chelsea, of people dying from the bites of Mad Dogs, without its having ever been ascertained whether there was Hydrophobia.

This leaves room for doubts, and wrong conclusions, among those who are not acquainted with all the characteristics of the disease; especially, when the power of swallowing liquids, without much difficulty, returns,—as it did in one of these two cases, and also in that of young METCALFE.

The

The return of the power of swallowing has never been noticed before ; but I must observe it is very common, after the cessation of the violence of the convulsive struggling, spitting, and foaming at the mouth, which usually happens a little before the patient dies.

ON CANINE MADNESS.

IN my work on *Tropical Diseases, Military Operations, and Climate of the West Indies*, I have shewn that the bites and stings of all venomous animals are cured,—the remedies being instantaneously used,—by the same local means; and that these local means are very simple, if they were always at hand.*

In the same work I observed,—

It has always been a matter of surprise to me, that HILLARY should say Canine Madness “is so frequently seen in most hot countries, and especially in the West Indies, that it may be said to be endemial,”† which is so far from being true, that if HILLARY, who treats of it, and relates several cases that were under his care in Barbadoes, had not been a man of good character, I should have doubted whether he had ever seen a Mad Dog in the West Indies. I am aware that HUGHES, in his *Natural History of Barbadoes*, says, “This disease was there in or about

* Fourth Edition, p. 35.

† On the Diseases of Barbadoes, p. 245.

the year 1741; and that a Cow, in an Hydrophobia, was cured by pouring a pailful of cold water down her throat."*

During my residence in the West Indies, I never heard of the disease; and from the inquiries I have made, I am certain that there has been no Canine Madness in many of the islands, if in any of them, for fifty years, before the year 1783; and I am not satisfied with the authority which informs me it was ever there before that year. On the immense continent of South America, it has never been seen. ULLOA says, "The people there express their astonishment when an European relates the melancholy effects of it;"† and POUPE DESPORTES, who practised physic in Hispaniola from 1732 until 1748, says, "In that island they are entirely ignorant of it."‡

It is certain that diseases undergo changes and revolutions. Some continue for a succession of years, and vanish when they have exhausted the temporary, but secret cause which produced them. Others have appeared and disappeared suddenly; and others have their periodical returns.

* Page 33.

† Liv. V. ch. vi.

‡ A Saint Domingue on a l'avantage de ne pas connoître la Rage. *Histoire des Maladies de S. Domingue*, Vol. II. p. 157.

In the spring of 1783, Canine Madness broke out in Hispaniola; and in the month of June in Jamaica, where it raged until March, 1784. It was said at first, that it was brought to Jamaica from Hispaniola; but experience proved the fact to be otherwise.

The common notion that this disease among Dogs can only proceed from the poison of an external bite, or that it originates in some particular Dog, from internal disease, and from thence is diffused, has excluded the idea of spontaneous madness, arising from some peculiar influence in the air. But this influence of the air generated the Canine Madness in the year 1783, in the West Indies; for it was general, and many Dogs were seized with it, that had no communication with others; and some Dogs which were brought from Europe and North America, and that were not on shore, went mad on their arrival in the harbours of the islands.

The same atmospheric cause produces this disease almost every year among foxes, wolves, and Dogs, in many parts of Europe; some instances of which I have seen in my travels.

In Venice I found the common opinion to be, that the disease is often occasioned by thirst; for which reason all barbers, shoemakers, and coffee-house-keepers, are obliged to have a small tub or pan of water before their doors, particularly in hot weather, that the Dogs running
about

about the streets may drink when they want, as there are no places in that city where they can otherwise supply themselves with fresh water.

In 1783 this disease was general in Jamaica. Many negroes were bitten, and died Hydrophobous.

A boy belonging to Mrs. Inglis, in Kingston, was bitten by a little Dog supposed to be mad, which was therefore killed. The bite, or rather scratch, was not larger than one made by a pin, being only a rasure of the skin by a tooth. It was thought too inconsiderable to be hurtful. Four months afterwards the boy was seized as if he had got a cold, and soon after symptoms of a Tetanus appeared. He died on the third day, but had no symptoms of Hydrophobia.

An attorney at law in Kingston was bitten by his own Dog. The bitten part, which was in the ball of the thumb, was removed. He was then salivated by mercury, externally and internally used; and he had no symptoms of disease. One of his negroes was also bitten, and treated in the same manner, and with the same success.

Many hogs and goats were bitten, and died mad.

An horse belonging to Mr. Edward East, in Liguanea, was bitten, and being seized with madness, was shot. Another horse, belonging

to Mr. Andrew Cathcart, a merchant in Kingston, was bitten. He broke out of the stable and ran about mad, until by beating his head against a wall he killed himself.

In the cure of the bite of a Mad Dog, the local treatment may alone be depended on, when recourse is had to proper means, immediately after the accident.

The injured part must be destroyed, or be cut out. Destroying it is the most safe and certain; and the best applications for that purpose are the *Lapis Infernalis*, and the *Butter of Antimony*. These are preferable to an hot iron, which the ancients used; because an hot iron forms a crust, that acts as a defence to the under parts, instead of destroying them.

The *Lapis Infernalis* is much better than any other caustic, as it melts and penetrates during its application.

The bitten part must be destroyed to the bottom; and where there is any doubt that the bottom of the wound is not sufficiently reached, *Butter of Antimony* should be introduced, occasionally, as deep as possible; and incisions should be made, if necessary, to lay open every part to the influence of the caustic. In desperate cases, incisions should be made round the wound, to prevent the virus from spreading.

The wound is to be dressed for some time, with poultices, to assuage the inflammations caused

caused by the caustics; and afterwards with acrid dressings, and hot digestives, to create a discharge, and drain the injured parts.

The most speedy, and most effectual method of destroying the flesh, or of making an opening, is, first to apply some *Butter of Antimony*; this must remain until it causes a vesication, or corrosion of the cuticle. Then the *Lapis Infernalis* will soon occasion the destruction of all organization within an extensive sphere of action; by which, insensibility to the operation of the poison is produced, and an incapacity of diffusing it.

Whether animal poison be distributed by the conveyance of the solids, or of the fluids, is a question with many; but not with me. For the poison of some serpents acts, in a few minutes, so as to dissolve the bond of union between these elements, which constitute the human frame, and extinguishes life. Whereas, the poison of a Mad Dog will remain inactive in the system, without any apparent, or perceptible effect, even in the part where it has been inserted,—for many weeks, and often for many months.

The lymphatic movement is too slow for one of these operations, and too quick for the other. But I have discussed this subject elsewhere.*

* *Treatise on Tropical Diseases, &c.* 4th Edit.

When the abovementioned Caustics cannot be procured, Oil of Vitriol, Aqua Fortis, Spirit of Salt, Corrosive Sublimate, Common Caustic, Brine, a strong solution of Common Salt, or a plaster of Quick Lime and Soap, may be applied to the wound. Gunpowder laid on the part, and fired, has been used with success.

A person bitten, remote from medical assistance, will seldom be so circumstanced as not to be able to obtain one or other of the preceding remedies. Should it so happen that he cannot, an hot iron can always soon be procured. The wound should be seared with that; which will be a temporary arrest to the action of the virus.

Mercury, in the tardy manner it has always been employed, is of no use; nor have any of the vaunted compositions imposed on mankind, ever produced effects which could be depended on. People have taken them, and Hydrophobia has not appeared. So it is often, when no medicine whatever has been taken.

Where there has been no remedy used, though the bitten part be healed, and the cicatrix shew no sign of breaking open, or festering, it should be removed by taking out the part all round, deeper than the wound originally was, with *Butter of Antimony* and *Lapis Infernalis*, in the manner already described.

If

If pain, numbness, tingling, itching, redness, or blackness in or near the wound, or in the limb in which it is seated, have already taken place, the patient is in peril; Hydrophobia is not far off; and there is no time to be lost.

Mr. METCALFE had an excruciating pain in the arm of the bitten hand, extending from his shoulder to the ends of his fingers, which attacked him two days previous to the Hydrophobia. The pain left his arm when the Hydrophobia came on. This was the time to have saved his life. But he thought it was rheumatism, and had no idea of his situation.

What could have excited this long latent mischief into action? There are no grounds for believing the poison had ever travelled out of the limb, wherein it was deposited, before this time; for he was in perfect health. The flame burst forth in a moment; from embers which had been smothered, during a period of between four and five months.

Mrs. LACASE, on the contrary, was never entirely well from the time she was bitten; and became Hydrophobous in twelve days.

Who can reason on these data?

The method here advised of treating the bites of Mad Animals, accompanied, where there has been any delay, with antispasmodics and mercury properly, externally or internally, used,

so as to tranquilise the nerves, and affect the salival glands judiciously, will prevent all evil consequences.

In this disease, and indeed in all others, where mercury can with equal efficacy be used externally, it ought. The stomach should be reserved for other medicines; and to be disposed of according to exigencies.

Samuel Haines, game-keeper to the Duke of Bedford, was bitten by a Mad Dog at Woburn Abbey, on the 21st of October 1788, in his right hand, by which two wounds were made; one of them was considerable. He was sent to me four days after the accident. I had both wounds deeply destroyed by the *Lapis Infernalis*; and well searched, afterwards, and dressed occasionally with *Butter of Antimony*. He took calomel until his mouth was properly affected. The wounds were kept open for a month, with *Red Precipitate* and digestives. He returned home, and continued perfectly well. The Dog died mad.

I have often mentioned this Case of late years, merely to shew, that my doctrine is not newly adopted. I had several other patients in the year 1788,—as Canine Madness then raged in England,—whom I treated in the same manner. I have likewise had many since; and many long before that period in different parts of the world,

world, and from my own practice, I never had the misfortune to see Hydrophobia.

All the genuine symptoms of Canine Madness presented themselves in the two preceding Cases. The subjects were young, strong, and healthy. But in such a perturbation of the animal spirits, as happens in this disease, other phænomena, the offspring of peculiar organization, must sometimes occur.

A boy of eight years old, who died of Canine Madness in November last, 1807, had an insupportable sense of suffocation, in walking with his face to the wind,—but not otherwise. This circumstance, with head-ache, constituted the first symptoms. They appeared on a Tuesday. Afterwards he went the whole round of misery, and died on the Saturday following. His parents informed me, (for I did not see him) that during his struggles he complained, when his mother fanned him, that he could not bear it; as the wind occasioned by the fan choked him. He was bitten between six and seven weeks before his death.

It has been customary to call this disease by the general name of Hydrophobia, but that is incorrect; therefore I divide the disease into three stages.

I. *Hydrophobia*, or the dread of water.

II. *Dyscataposis*, or difficulty in swallowing, and choking.

III. *Rabies*, or convulsion, attended with vehement spitting, and frothing at the mouth.

The symptoms arising in the system from the bite of a Mad Dog, antecedent to Hydrophobia, are of that description called—nervous; consequently various, in different constitutions.

Not apprized of this, writers have erroneously considered some peculiar symptoms, as universal characteristics of the disease. The same error has been committed in the convulsed state.

Canine Madness seems to be a mixture, or rather a succession, of Hysterical and Tetanic affections.

Apprehension, lowness of spirits, and fright, at first; in which state, the nervous influence is only concerned; and the voluntary, and involuntary functions remain undisturbed. To this condition succeeds spasm in the throat,—the region besieged by all passions combined with fear, or dread. Then universal muscular convulsion makes an horrid attack, and subverts the whole order of nature.

B. M.

*Chelsea Hospital,
3d February, 1808.*

FINIS.



