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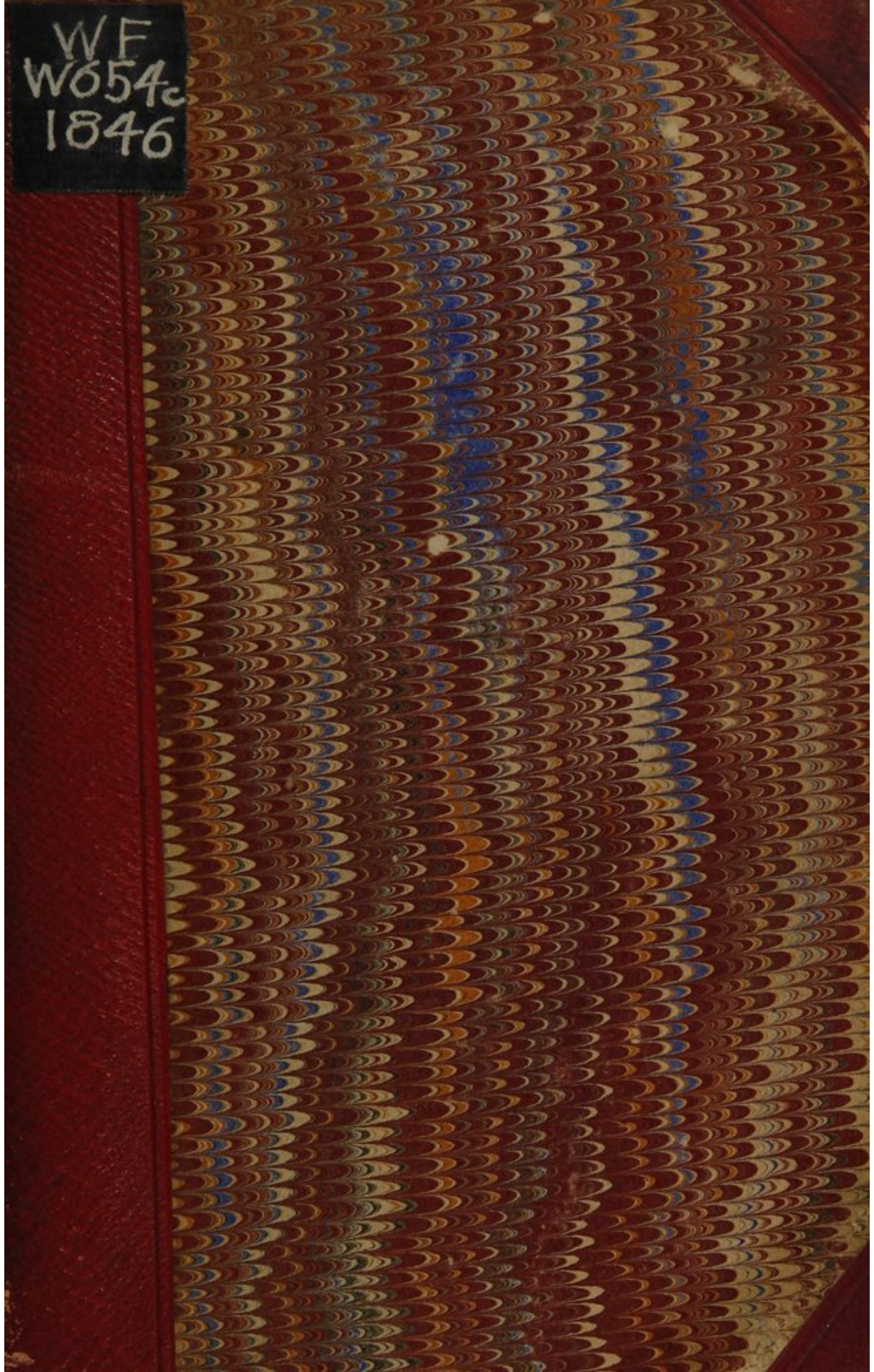
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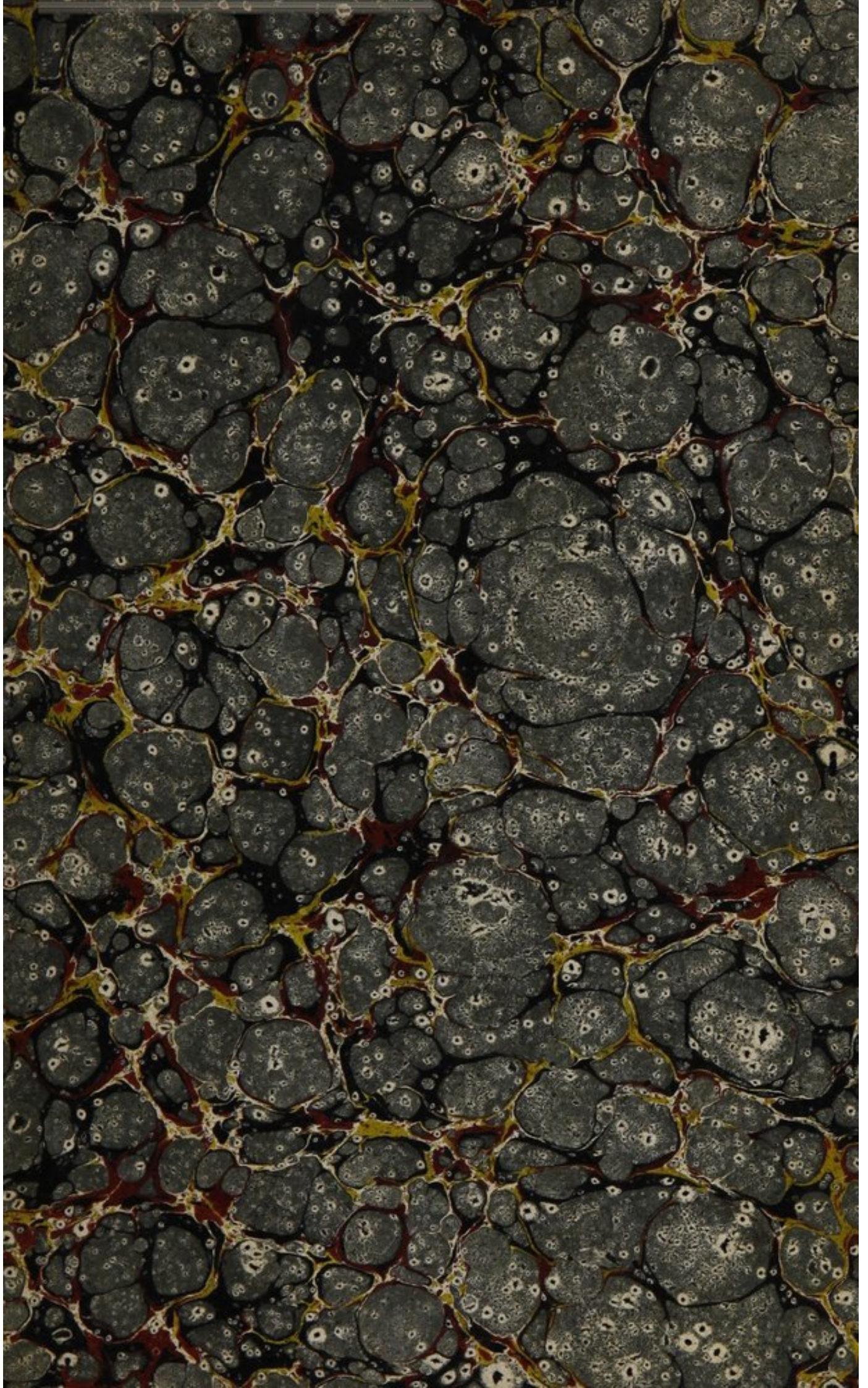


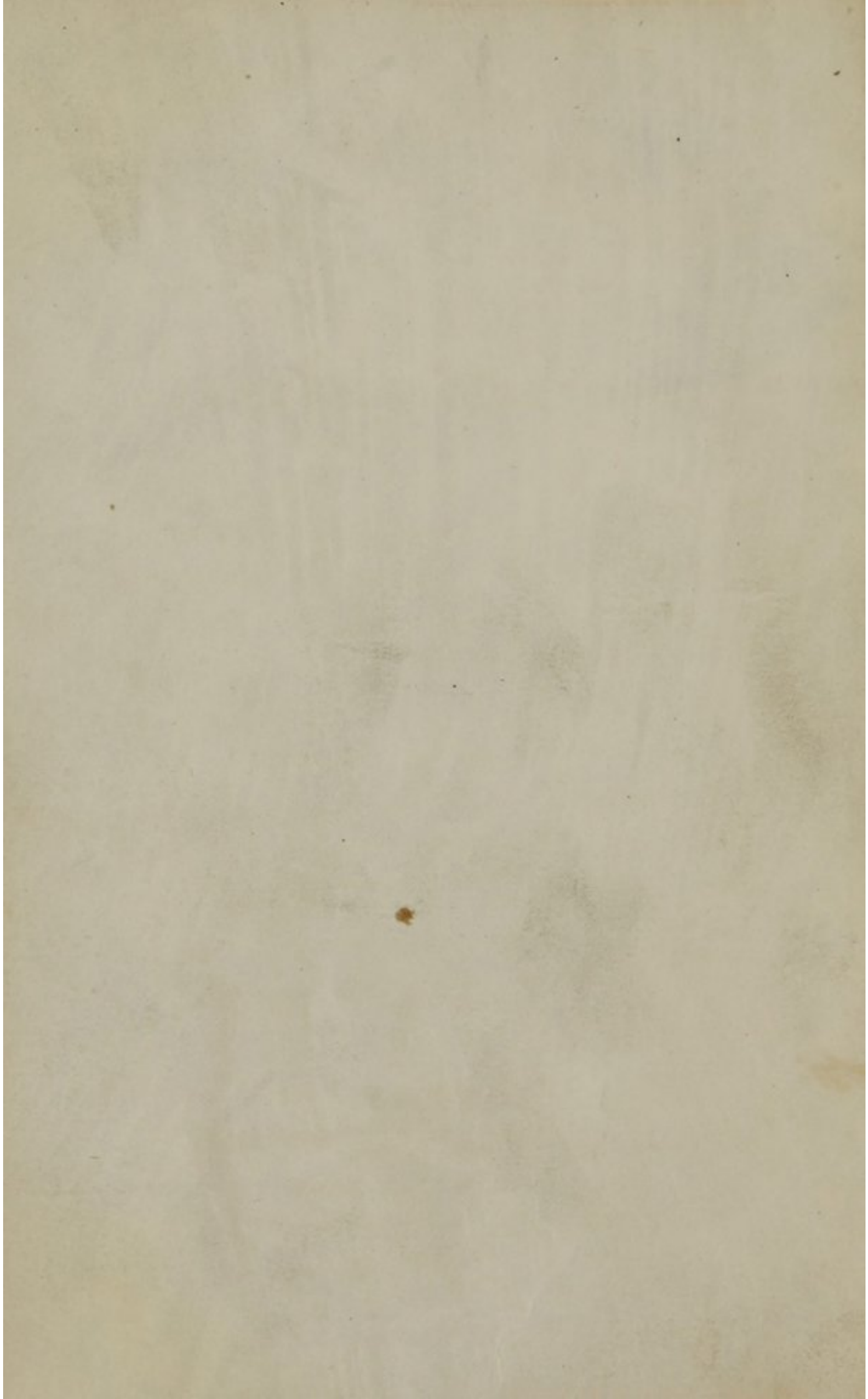
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CROUP

AND

ITS SPECIFIC REMEDY

BY

HENRY WIGAND, M. D.

BOSTON:

OTIS CLAPP, SCHOOL STREET.

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P R E F A C E .

THESE few pages are given to the public, with the sincerest wish of the author that, by the publication of a remedy used so successfully in the treatment of croup, every physician, and every father and mother, might be induced to use this remedy in similar cases, and thus save the lives of thousands of children, the pride and hope of parents, who, without this remedy, cannot be saved from a most horrid death.

The author is a foreigner ; and the deficiencies of this little pamphlet the reader will kindly excuse, and attribute the same to his not very extensive knowledge of the English language.

BOSTON, JUNE, 1846.

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INTRODUCTION.

FOR sixty years physicians have been endeavoring to discover a remedy for the cure of croup. Almost every drug of the shops has been tried over and over again; and among all these not one has attained such a celebrity as calomel. A great many doctors have believed this preparation of mercury a specific against this disease; some even have pronounced it the best and the never-failing remedy. However, every physician of the old school now knows that children who are laboring under a higher degree of croup, can, neither by small nor large doses of this poison, nor by any other drug, be saved from suffocation. As croup commonly commences with very slight symptoms, parents do not call for the aid of a physician till the disease has reached a remarkable height, or, till paroxysms of suffocation commence. In such an advanced stage of croup, allopathic treatment is of no avail, and the application of vesicatories, leeches, emetics and calomel, which are administered in rapid succession, are only additions to the increasing pain and distress, from which these unfortunate children already suffer so intensely.

Homœopathic physicians have treated this disease with more success, by the administration of aconite, belladonna, hepar, spongia, &c.; yet even this treatment has, in a great many cases, proved unsuccessful; and it would be ridiculous to recommend or try either the one or the other kind of treatment, when we have an almost specific remedy for croup — a remedy so simple, and yet so powerful. *This remedy is cold water.* I, and many other physicians in this country, and in Europe, have applied cold water in all stages of croup; and every one who has tried it has become convinced that by it the life of thousands of children could be

saved, who without it must undoubtedly suffocate. Thirty-three cases of real croup have been reported lately by an eminent surgeon in Germany, which were treated by him with cold water exclusively, and of which he lost only two. Is there a physician in the world, who can say that among thirty-three cases of croup he has lost only two? Almost daily are children attacked by this fatally terminating disease. The word "croup" fills the heart of every mother with the greatest anxiety; and physicians owe it to their conscience and humanity, after hundreds of cases have been treated so successfully by this remedy, to give it a trial. Yet, fathers and mothers, should the physician hesitate to apply this all-healing balsam, and is the life of your child dear to you, do not hesitate to apply the water yourselves. Pills, calomel, and other poisonous things, only increase the pain and sufferings of your poor child, and hasten it to the grave. The operation with water is very simple, and the necessary materials are in the hands of every body; only, apply it strictly according to the prescriptions which I shall give to you in the following pages.

C R O U P .

CROUP is a Scottish word, which signifies compression, and is applied to denote an acute inflammation of the mucous membrane of the larynx, trachea and bronchial tubes. This disease is characterized by a rapid formation of a false membrane in the above-mentioned canals. The name "croup" is transferred into all languages; however, other names are also used, by different writers, for the disease called croup. Baillou calls it "Affectio orthopnoica;" Michaelis, "Angina membranacea;" Albers, "Tracheitis infantum;" Hufeland, "Angina laryngea exsudatoria," &c. The time of the origin of this disease is unknown; though Mr. Hagen thinks it appeared first *since coffee was used as a dietetic article.*

NATURE AND SEAT OF CROUP.

Croup is of an inflammatory nature. It is well known that membranous concretions are formed upon spots of the skin, where a vesicatory has been applied; also, upon serous and mucous membranes which become inflamed; and, in almost all post mortem examinations of croup cases, the mucous membrane of the larynx has been found reddened, and full of minute apertures. Nevertheless, there have been, and are probably yet, physicians, who deny the inflammatory character of croup, and call it a catarrhus and spasmodic affection.

Catarrhus affection is at the same time an inflammatory affection ; and a closer consideration of this opinion would be out of place. Regarding the spasmodic affection, they think it a contraction of the glottis, by which the passage of air is prevented. As a proof of the correctness of this opinion, they refer to cases, in which dyspnœa existed in a high degree, or suffocation had taken place, though no foreign body was found after death, and sufficient space was left for the passage of the air. These facts, however, are no proof ; for, by the inflammation of the glottis and the passage of air through this narrow space, or the existence of a false membrane, the sensitiveness and irritation is raised, and a spasmodic affection is the consequence. The contraction and spasmodic constriction need not be so intense as we at first might imagine, in order to produce the horrid feeling of suffocation, which is one of the characteristic symptoms of croup ; for the inflammatory swelling of the mucous membrane is alone sufficient to produce obstruction of a canal, which, in children, is only half as large as in adults. It is true, there are cases on record in which no redness of the canals was noticed, and no false membrane existed after death ; but, in all cases of sudden inflammation, does not the redness of the affected part disappear after death ? Or, if expectoration of the false membrane had taken place previous to death, does not this give sufficient proof that inflammation had existed ? Moreover, could it not have been another disease, very similar to croup ? Hereby it is obvious that neither by the symptoms nor by the results of pathological anatomy, can anything be found which confutes the inflammatory nature of croup. But the question arises here, Whether croup shows itself as a pure, simple inflammation, or as a peculiar kind ; and whether every inflammation of the larynx must be considered as croup ?

Every laryngitis, in which we notice a tendency to form a false membrane, gives sufficient evidence, by its symptoms, its causes and course, to be distinguished

from simple laryngitis ; wherefore it has been separated from the latter by the name "croup." It is not the larynx alone, however, in which this false membrane is formed ; we find it also in the trachea and bronchial tubes ; and, therefore, we have a laryngeal, a laryngo-tracheal, and laryngo-bronchial croup. Bronchial and tracheal inflammation never exists without participation of the larynx, while the latter is found inflamed without affection of the former organs.

Some writers, in France and Germany, think the croup a morbid affection of the blood and the nerves of the affected organs. The disease of the blood they prove by the plastic lymph noticed in the same after venesection ; the affection of the nerves, by a kind of asthma preceding real croup, also by the great anguish and restlessness in the beginning of the disease, and the peculiar cough.

CAUSES OF CROUP.

Croup is a disease of children. Only a few cases are on record where adults had been attacked by the same. Nursing children are less liable to this disease, than weaned children from the second up to the seventh year. Plethoric, fat children, with auburn hair, who were always healthy, are attacked very suddenly by this disease, and die by suffocation, a few hours after commencement of the same. Not unfrequently it appears epidemic ; without spreading so rapidly as an exanthematic disease, or as hooping-cough. In the majority of cases, we find it sporadic, without contagion. Many children are at once taken by this disease, in countries where the air is kept moist constantly by stagnant waters, and especially near the sea-shore, where north and east winds prevail. This, however, gives no proof of a contagious character. Children who take cold suddenly, or who are exposed to a draught of air when warm, also boys who, with their head and neck uncovered, when very warm, expose themselves to the

cold air, or run against the wind, talking and screaming very loud, are liable to croup. This disease is rare in summer, and in southern more unfrequent than in northern regions. Moist air is considered as a cause, although the greatest part of croup cases is noticed in dry seasons. Other predisposing causes are, a too nutritious diet, animal food, and heating liquids — *coffee, tea and wine.*

HOW TO PREVENT CROUP.

In order to prevent this disease, children should become accustomed to the changes of weather in all seasons ; to a cold, hot, dry and moist atmosphere ; to north and south winds ; avoiding, however, every sudden change from warm to cold. They should not be dressed too warm, and especially the neck should be covered lightly ; for nothing favors the susceptibility for this disease more than wearing fur around the neck. The wearing of flannel upon the naked skin is also pernicious. It produces irritability of the skin, and every slight change of temperature generates catarrhus affections. Cold bathing every day, and a glass of fresh water before going out in the air, is an excellent preventive of this disease.

The nourishment of nursing children should be very simple, and food be given to them in very small quantities. Overloading the stomach with food produces dyspepsy, as they are unable to digest substantial food ; and overfeeding would produce abdominal difficulties, pain, crying, and, by the latter, an early disposition for inflammation of the respiratory organs. Children should also never be weaned at once, in order to prevent much crying. Coffee, tea, wine, high-seasoned and too warm food, as they come in immediate contact with the larynx, produce an irritability of the same ; and the least change of atmosphere brings on inflammation of the mucous membrane. More cool than warm food is highly commendable, in order to prevent this disease.

COURSE AND SYMPTOMS.

Croup appears either suddenly, with a strange-sounding, spasmodic cough, or with catarrhus affections, as, hoarseness and harshness of voice, a dry and rough cough, with febrile motions of the blood, the cough passing over into that peculiar croup-cough, resembling the barking of a dog, or the crowing of a young cock. The hoarseness increases, and the breathing becomes more whistling. Afterwards a remission follows: the patient plays and eats, and the peculiar sound of respiration is only noticed when he is laughing, coughing or crying. All danger seems to be over.

Second period. Towards evening, or midnight, the child becomes low-spirited, and awakes with the peculiar barking cough, accompanied by slight pains or contractions in the trachea, and an increased whistling sound during inspiration. The face becomes red during the paroxysms, the bloodvessels of the neck and head increase in size, and the pulse beats hard and rapid. From one to three quarters of an hour afterwards, they again become quiet, and sleep; and we could think the danger had gone by, did not the pulse remain frequent, the trachea painful, and the cough rough and rather difficult. Inflammation has now taken place, and an aggravation of the symptoms will be noticed, as soon as the effusion of plastic lymph takes place, and as long as the same continues. The greater the collection of lymph is on the inner walls of the trachea, and after the organization of the same into a pseudo-membrane, the more is the canal contracted, and respiration rendered difficult. After effusion, the paroxysms become more violent and frequent, the cough more barking, accompanied sometimes with expectoration of membranous masses. The patients grasp with the hand at the larynx, and complain of pain there; and the formation of the pseudo-membrane has now taken place. By continued effusion, and formation of the plastic lymph into

an organic mass, the respiratory canal becomes shut up almost entirely, and suffocating paroxysms appear. Inflammation of the pharynx is very rare, and has only been noticed in those cases where the tonsils were inflamed.

Third period. Inspiration becomes more loud, whistling, short, difficult; the head is bent backwards; the throat stretched and extended upwards, and painful to the touch or in coughing. In the beginning of the disease the constitutional affections are very slight; in the third period, however, when the paroxysms become very frequent, the whole organism is affected, and convulsions of the muscles of the face and other parts take place. Drinking irritates the cough, and produces new paroxysms; therefore the patients are averse to taking liquids. The pulsation of the heart and arteries varies, according to the slow or quick, deep or short respiration. The anxiety becomes indescribable; no position is comfortable; the patients jump out of the bed, tear out the tongue, pull the hair, run to the nurse or mother, clasping their clothes firmly and begging for air; or brace their hands and feet against the wall, in order to obtain inspiration. Shortly after such a paroxysm, we see them sink on the bed, pale, exhausted, and of a bloated appearance. They seem sleeping, with the eyes half open, and the albuginea of an inflamed appearance. But not long does the patient remain in that quiet state. Again he is roused up. We feel the trembling of the heart, the vibrating of the carotids; we see spasmodic contractions of the diaphragm, the cartilages of the ribs, and even the sternum is violently drawn back; the shoulders rise high up, the abdominal muscles are drawn towards the back, the larynx up to the chin; the nostrils wide open; the eyes sunk and extinguished, surrounded by blue borders. We hear only a hoarse, cawing, whimpering for air and liquids. In the adjoining room, we can hear the sawing noise of breathing, which at length becomes rattling, the cough having disappeared entirely. Medicine is taken by

these unfortunate children with their full senses. Larger children force down sugar and crusts of bread, in order to remove the obstacle; and, if unable to whisper, they give signs imploring for help. They sometimes lacerate themselves with the finger-nails and teeth, or push the hands deep into the mouth, and rush with their heads against the walls, crying for air, till they at length fall dead upon the floor. Some die during a spasm; others become quiet, and, with cold sweat all over, expire, like the going out of a candle.

Its course is very rapid. The disease terminates within two, three, to six days. Death ensues by suffocation or by apoplexy.

The appearances after death are like those of suffocated persons. The mouth is covered with mucus; the walls of the same are perfectly sound; tonsils and pharynx sometimes inflamed; larynx, trachea, and often the bronchial tubes, are covered with the false membrane, producing entire obstruction, or considerable contraction of the glottis, and in many cases closed by it as by a valve. The thickness of the membrane is not in all cases alike; it is commonly like thin paper, and insoluble in water.

DIAGNOSIS.

The characteristic signs of croup, already described, leave almost no doubt of its existence; nevertheless it has been confounded with simple laryngitis, in which hoarseness and the so-called sheep-cough were present; also with asthma acutum infantile. The latter is distinguished from croup by this: that it appears without being preceded by any catarrhal symptoms, accompanied with no febrile affections, and the attacks cease entirely for hours. Angina tonsillaris, which disease consists in swelling of the tonsils, has some similarity with croup; but is attended with no cough. Combinations of croup with pneumonia and gastritis are not unfrequent. They are ascertained by percussion and auscultation.

PROGNOSIS.

In the majority of cases, croup is to be considered as a dangerous, fatally terminating disease, especially under allopathic treatment. Nursing children recover easily, and in a short time, and are not liable to such violent paroxysms as older children. Scrofulous patients recover very slowly. Combined with measles, it is less dangerous than sporadic. In the first and second stage, before the formation of the false membrane has taken place, there is a greater chance of saving the child than in the third period. Death sometimes ensues by great weakness and dyspnœa, even if expectoration of the pseudo-membrane has taken place. The symptoms of the third period—increasing dyspnœa, whistling respiration, accompanied with a loud rattling, rapid contraction and extension of the abdominal muscles, are commonly signs of approaching death. Bloatedness is one of the gravest symptoms. Recovery might be expected, if the paroxysms become less, and the cough loose, accompanied with a slight rattling. If strong emetics have been administered, we generally find that the patients are troubled with hoarseness and dyspnœa for a long time, which may arise from coagulated lymph, settled down in different places of the lungs and air-tubes.

TREATMENT BY COLD WATER.

The treatment of croup by cold water is not a new discovery. Drs. Harder, Hagen, and others, have reported cases already in which they applied cold water with great success, after leeches, emetics, blisters and calomel had been administered in vain. Few physicians, however, took notice of these facts. The first case which I treated myself with cold water, after the usual medicines had been given without any particular effect, was executed with a febrile anxiety. However, the

operation proved successful ; and since that, I have cured all croup cases which came under my treatment with the mere application of cold water. How such an effect can be produced by a simple remedy, like cold water, is astonishing, but nevertheless very natural and obvious. By the sudden application of cold water, the great heat in the affected parts is vanquished at once, and the swelling of the inflamed larynx is immediately diminished ; hereby the air-passage becomes enlarged, and the patient is enabled to breathe more freely. Moreover, the lungs, by the shock produced by the sudden affusion of the cold water, become irritated, and make a strong effort to draw in the atmospheric air with all their power. The consequence of this is, that an extension of the air-passages, and a separation of the plastic lymph or false membrane, takes place. This effort is so certain, and so natural, that every body, who is able to reason, will find it true. As suddenly as children are attacked by this fatal disease, as easily can they be cured of it, by an early and proper water-treatment.

UTENSILS, ETC., NECESSARY FOR THE OPERATION.

These are : several dry and soft towels ; a large, not too coarse sheet ; a straw pillow ; a large sponge, or a clean piece of linen, for washing the child ; a bath or common wash-tub, filled with three or four pails full of *fresh* well-water ; another empty tub, which must be large enough to put the child in it in a sitting position ; a large pitcher ; several pounds of ice, and two or three hogs' bladders. In winter, the room should have a temperature of 15° or 16° R. (66° or 68° Fahrenheit.)

HOW TO APPLY THE WATER.

After all these things have been put in readiness, the patient is undressed, and the sweat wiped off from the whole body with a dry towel. We then take a large

sponge, dipped into fresh water, and wash first the head, neck, thorax, back and abdomen, and finally, the upper and lower extremities. The patient is then put into the bathing-tub, and held in a sitting position by two assistants. Again the whole body, from head to foot, must be washed with cold water. As soon as the patient is thus cooled off, we proceed by pouring the cold water (a gallon or more, at once,) at short intervals, alternately over his head and neck, and continue these affusions for five or ten minutes, according to the degree of the disease. The water must not be poured slowly over the patient, but suddenly, from a height of about two feet, and directed particularly upon the back part of the head and back of the neck. During these affusions, one of the assistants keeps rubbing gently the back, and the other the breast and abdomen of the child. The physician, or operator, puts his left hand upon the head of the patient, in order to prevent bending back of the head, and running of the water into the mouth. After this, the child is taken out of the water, wrapped in a large linen sheet, wiped carefully, and a shirt put on. In dangerous cases, it is necessary to repeat the operation several times, and as repeated dressing and undressing of the child would become troublesome, we only wrap it in a large sheet. Having brought the patient to bed, he should be covered lightly, (one or two blankets,) and a cold compress, or, in dangerous cases, a bladder filled with small pieces of ice, placed around his neck. The compress must be renewed as soon as it becomes warm, or as the ice is melted. In higher stages of croup, when the child's breathing is very difficult, or if it be accompanied with inflammation of the brain, a bladder filled with ice is also applied upon the head and breast. If the child cannot bear the bladder upon the skin, as it produces sometimes a burning sensation, we may apply a double-folded linen beneath. Water, as a drink, should be offered to them once in five minutes, and so much given to them as they desire. Nursing children seldom like to drink

water, and to these the breast should be offered, if they do not sleep, as soon as they have recovered a little from the operation. This, however, must be done without taking them out of the bed, or removing the bladders or compresses from their place, which can be accomplished if the mother or nurse bends herself over the child. A teaspoonful of water should be given to them once in five minutes, for every drop is balsam to the inflamed larynx.

Shortly after the operation, they commonly fall asleep. Grown-up children, who do not desire to go to bed, may dress themselves, and walk around in the room, by which the chilliness they feel after the operation will soon disappear.

PHENOMENA WHICH ARE PERCEIVED DURING AND AFTER
THE COLD-WATER AFFUSIONS, AND WHEN, HOW OFTEN,
AND IN WHAT MANNER, THEY MUST BE REPEATED.

The phenomena which we notice, according to the degree of the disease, during and after the affusion, are the following :

When the water is poured over the patient, he is obliged to inspire quickly and deeply. Shortly afterwards, however, he expires with great exertion, accompanied with a loud cry, cough and expectoration. By continuing with the showers, the cough becomes loose, and, sometimes in five minutes, all the mucus is expectorated, and respiration is normal. These favorable changes, however, take place only in light cases of croup, or when the operation is performed at an early hour ; also, oftener in children with a light than a dark complexion, as the nervous system of the former is more excitable, and the effect of a sudden affusion of cold water upon their delicate skin more violent and intense. Some children are much affected by affusions upon the head. In such a case, the stream of the water should be directed more upon the neck ; yet the head must not be neglected entirely, in order to prevent con-

gestion and inflammation. After the deep inspiration has taken place, we should wait with a new affusion till expiration has followed. The deeper the child inspires, the more the larynx becomes extended, and the sooner must the lymph separate from the inner walls. By the intense contraction of the integuments of the neck, coughing and hawking is produced, and the mucus expectorated. This plastic lymph is generally swallowed by the children. If it is expectorated, it swims in the water, and has the appearance of white blotting-paper, or the white of an egg. All the grave symptoms, sometimes, appear again in three or four hours after the first affusion; and a second is required. The patient is then less affected, expectorates easier, and the voice becomes natural. The difficult breathing, and the rattling noise in the throat, commonly appears again in six or seven hours after the second affusion. As often as difficult breathing, with a peculiar metallic tone, and a barking cough, reappears, the operation must be repeated; *and a careful observation of these changes in cough and respiration is therefore absolutely necessary.* Is the proper time for a renewed application of cold water neglected, inflammation will increase again, the cure is prolonged, and very often the child dies by suffocation. In such a case, however, death is not caused by the water, but by the ignorance and neglect of the physician. Should we be doubtful about the proper time of a renewed affusion, we always may repeat the operation rather a little too soon than too late. In almost all cases the cough is a sure guide. The more dry and painful it is, the more the patient suppresses it, the more anxious he turns from one side to another before a paroxysm, the oftener he changes the position of the head; the more certainly is the repetition of the operation indicated. In light croup cases, the metallic tone during breathing, and the violent pain when coughing, is removed entirely after the first two affusions; and a physician, who has not seen the patient before the commencement of the cure, could not perceive that the

child had the croup. The whole disease has then the appearance of a common catarrh, or any other catarrhal affection.

Has croup reached a higher degree, then we will perceive, during and after the first affusion, the following phenomena :

The child expectorates no mucus ; makes also no effort to hawk up any ; is more restless ; struggles often and anxiously for air, especially when the water is thrown over the head ; the breathing remains laborious for the first five minutes during the operation, and becomes, in some cases, even more difficult than before ; however, the sharp metallic sound, noticed during inspiration and expiration, disappears entirely, or diminishes at least considerably after the third or fourth pitcher of water has been thrown over the child. By continuing the affusion, the lips of the child become bluish ; the bloatedness of the face decreases ; the eyes lose their weakness, and his looks become fresh ; the voice, however, remains hoarse. In the second five minutes of the operation, we notice an easier breathing ; disappearance of the bluish color around the mouth ; more quietness ; and he is less affected by directing the stream of water over the head. During, or shortly after the affusion, discharges of urine and fæces take place. In such cases, the children are not taken out of the bath, till back, breast and abdomen have become red by gentle rubbing. Fifteen minutes after the affusion, the patient having recovered from chilliness and terror, we notice, although every respiration is heard distinctly at a distance, a more easy and free breathing. The tone, which before the operation was hard and sharp, is now like that of boiling water.

Besides, we notice that the child hawks up from time to time small portions of mucus, which is swallowed down ; and after this, the breathing becomes more easy. It also happens that the patient after the first shower-bath already coughs loosely, without turning from one side to the other, and without becoming restless. This

is a very favorable symptom, and the physician may prophesy a speedy recovery. If much mucus has collected in the larynx and trachea, vomiting takes place, after which a quiet sleep commonly follows.

The more intense the inflammation has been, the sooner reappears the sharp metallic tone when breathing. The patient becomes again hot all over, and the breathing more difficult. The more the child sleeps, the greater is the danger. As long as the cough is barking, hollow and dry, the inflammation exists to a considerable degree; and the physician should not leave his patient for a long time, as a second shower-bath is required before restlessness again takes place. Sometimes it is necessary to repeat the operation two hours, or even one hour and a half, after the first.

Cold hands and feet are not always the consequence of the bath, and give no counter-indication for a repetition of the same. Is, however, a second shower-bath necessary before the extremities have become warm, the assistants must rub them gently during the bath, by which a more equal distribution of heat in the body is effected. Should a decrease of the dangerous symptoms be noticed, the duration of the bath must be shortened about one or two minutes.

Has croup reached a still higher degree, so that the child can only breathe in a certain position, we must pay great attention to a careful washing with the sponge or linen rag before the shower-bath. By washing and rubbing gently the breast and neck of the patient, he is obliged to inspire in quick succession, and the inflamed larynx becomes thus prepared for a more deep inspiration during the shower-bath. Cold washing of the head before the bath prevents an accumulation of blood in the brain. Taking these precautions, I never have seen any bad consequences from these shower-baths, even in the most dangerous cases. Parents, or physicians, who have not courage enough to apply a shower-bath in very dangerous cases, may use the cold ablutions as a substitute.

The phenomena, which, in far advanced cases of croup, make their appearance during and after the operation, seem very alarming, indeed; and a physician who for the first time performs such an operation, will perhaps hesitate to go on, for fear the patient might suffocate under his hands. During the shower-bath, the children become blue over the whole face, and this color is noticed some time after the same; they bend their heads far backwards; they breathe very difficultly; they raise the shoulders high up when inspiring; they draw in the abdomen; the front part of the thorax is in violent motion; the tone, when breathing, is sharper, and more whistling, than before the operation, and we hear distinctly how the air must be forced through the narrow space of the larynx. All these symptoms, however, have existed before the operation already, and are, by the chilliness the patients feel by the sudden application of cold water, only brought more to light.

In these cases the physician must be fully convinced that he has the right remedy in his hands — the only remedy by which the life of the child can be saved. Without its application, the child is in a few hours no more.

No drug in the world can do any good in a high stage of croup. What benefit can ten or twelve leeches do, who suck the blood out of the skin, and leave the highly inflamed larynx as it was? What good can calomel or cuprum sulphuricum do, being swallowed into the stomach, and there waiting for digestion? What effect can a vesicatory have in cases where immediate relief is wanted? Such an unrational, absurd treatment is only an addition to the sufferings of the poor child, whose end is so near at hand.

If the physician does not lose his presence of mind, and performs the operation with boldness, and according to the given prescriptions, and if no paralysis of the lungs has commenced already, I assure you *the child will not suffocate by application of the shower-bath.* We have no remedy which increases the activity of the

lungs more energetically than cold water. Place only a hand or foot in cold water, and you are obliged to make immediately a deeper inspiration. What an excellent effect have not cold applications upon the organs of generation in hemorrhage of the lungs? Indeed, the effects of cold water upon the organs of respiration are so powerful, that with no other remedy can a suffocated person be brought back to life (if any life yet exists) so quickly and certainly, as by a cold shower-bath.

Children who have died of croup never should be buried before applications of cold water have been tried, or certain signs of death exist; for several cases are on record, where children, one day after they had been declared dead, gave signs of life again, before they suffocated entirely.

The greatest mistake a physician can make, during the operation, is, to take the child out of the bath, as soon as he notices an aggravation of the symptoms. By such a cowardice the patient may lose his life. Patients with a higher degree of croup should, during the first and second shower-bath, remain ten minutes in the water. Any aggravation of symptoms disappears as soon as the sensation of coldness ceases.

DIET AND CONVALESCENCE.

Grown children need, as long as croup exists in a high degree, no nourishment but water. As soon as they have an appetite again, I allow them soups, sweet roasted apples, cooked prunes, &c. Nursing children should have the breast as often and whenever they desire it. The milk of the mother is an excellent medicine for these little ones, and only a few drops are sufficient to give great relief to the hot and dry throat. Nothing relieves the cough of babies more than the milk of a mother or nurse.

Drugs, during the treatment of croup with cold water, are not only unnecessary, but also highly injurious. Even in complicated croup cases, cold water always has conquered the disease.

Sometimes there appears an eruption, during or after the treatment of croup with cold water, particularly on the neck, breast and back of the patient. This eruption consists of little red, hard, itching knots, as large as the head of a pin, which, however, disappear in a few days by continuing cold ablutions. All other complaints after croup, as, catarrh, cough and hoarseness, disappear also by a continued water-treatment.

If we compare children who have recovered from croup under homœopathic treatment, with those who have been treated by calomel, leeches, vesicatories, &c., we perceive a most remarkable difference. Children who were near to suffocation, are, after a cold-water treatment which only lasts a few days, quite as healthy, as cheerful and lively, as they ever had been before. They have lost very little or no flesh; complain of no pain; sleep, eat and drink perfectly well: whereas children who have taken a great deal of calomel, &c., become really sick after croup has been removed. Many of them do not recover till after several years, others remain feeble, enervated and sickly all their lifetime, and by every cool breeze become sick; they are a burden to themselves, and give to their families great trouble and sorrow.

It is impossible that physicians can think it an unimportant matter, when the whole constitution of a child is poisoned by calomel, in order to remove an inflammation in the larynx; it is impossible that physicians should not know that poisoning by mercury, and *solution* of all the glands, has the most injurious consequences for the future life of the children. — I do not blame physicians that they have administered calomel in large doses, in order to save a beloved child, even if its health became ruined forever; for they had no other remedy. Calomel was their only and last resource.

But now the case is altered. We have another remedy, a specific for croup, — and a more sure, a more gentle remedy than calomel; which leaves no afterpains, and by which the life of children, already standing on

the border of the grave, can be saved. Every physician, therefore, owes it to his conscience, and humanity, to consider well whether he will continue in future to poison his croup patients by calomel, or will cure them by the application of cold water.

