A few facts respecting the therapeutic use of pure oxygen, forgotten by the faculty but of peculiar importance to suffering invalids and their physicians / by S.B. Birch.

A FEW FACTS

RESPECTING THE THERAPEUTIC

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SUFFERING INVALIDS

AND THEIR PHYSICIANS.

BY

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INTRODUCTION.

THE writer humbly trusts that the following pages may be a sligl means of improving the mutual relations of "patient and doctor. From causes, an explanation of which has been essayed, invalids hav during the last few years, lost much of their former confidence i medicine, and have become not a little influenced by the feeling th their own interests are incompatible with those of their orthodo medical attendant. This feeling especially obtains among the high circles. When using the words "quack," and "quackery," we mu be understood as alluding to no professional brother who may co SCIENTIOUSLY practise an *heterodox* system. If such practitioners l men of honour, we look upon them as in every respect entitled to th same regard as the most orthodox. Our "quackery" allusions hav sole reference to persons who have never qualified themselves by passin proper examinations, and by previously undergoing that rigid course study and discipline which is necessary for the attainment of even th *first principles* of medicine. Possessing not the slightest knowledge the laws upon which healthy and diseased conditions of body depen can such individuals safely and honestly take under their care th lives of their fellow-creatures? Can any one, in the full possession his reasoning faculties, trust his life in their hands? We emphatical say "No!" Despair alone impels the incurable invalid to seek such ai

Certain facts with reference to the treatment of disease were mad known to the profession half a century since, and although no applicatio of science to medicine, *equal in importance*, has since been presented u these facts have been allowed to fall into neglect, simply we believ because they caused the practitioner too much trouble and loss of tim in applying them to his patients. It was found more easy to adhere routine, and ignore or forget an entirely novel method of cure. Th increased knowledge of organic chemistry afforded by the labours the celebrated Justus Liebig and others, has greatly enhanced th value and importance of these facts by reducing them strictly with the domain of legitimate science. We are anxious that their valu should no longer be overlooked, but that they should be entertained b the profession, who will then be enabled easily to cure diseases whic at present they call "hopeless."

S. B. B.

46, *Regent Circus.*

A FEW FACTS,

&c. &c.

It is not our purpose in this little Tract to write a medical dissertation on the method of cure which we are about to introduce to the reader; but necessarily we are obliged to give a condensed and brief outline of the principles involved, that we may absolve ourselves from any possible imputation of "quackery" or "empiricism"—an imputation which we repudiate as earnestly as would the President of the College of Physicians.

If we desired to select some organ as more important in its vital relation than others, we would name the lungs. The first organs exercised by the newly-born child when he enters on an individual existence, are lungs and heart. He inspires a volume of our atmosphere; his heart then contracts, and independent circulation is established. The last act of his existence is an expiration, which is not succeeded by inspiration; the heart then soon ceases to beat, the circulation stops, and life departs. An individual may live with a comatose brain for a space; he may live without using his stomach for a space; but how short is the existence of life when the functions of lungs and heart are suspended! In a very few minutes life has ceased. No human being can exist unless he instantly breathes;—thus the lungs and heart are the organs, first and last in point of necessity, to the maintenance of life and health.

We know that life is dependent on conditions of matter as much as that certain conditions of matter are dependent on life. It is not necessary for the physician to ascertain what life is in its abstract form: his science is, to know the conditions of matter on which health and life depend, and the laws which determine these conditions; his art, how to remedy these conditions when they are impaired.

The practice of medicine is two-fold: that which is adopted

for the relief of present suffering, or the derangement of some function; and that which is directed to remedy the primary cause of the suffering or derangement. The one is palliative merely relieving the effects of a diseased condition; the other is curative, by restoring the diseased condition to health. As an instance, the pain of gout or rheumatism is not the disease, but the effects of it. To relieve the temporary pain is not curing the disease;—to cure the disease we must attack the cause—that removed, its effect (the pain) will necessarily cease. The liver may be torpid and refuse to secrete bile, but it by no means follows that the fault is in the liver. Instead of flogging the sluggish liver with mercurials, it is sound practice to enquire,—Why is the liver sluggish? The organ may be too active and secrete an excess of bile, and pour this excess out till the intestinal canal is deluged, the bowels become disturbed, the tissues saturated, and the skin coloured by the quantity absorbed. Yet by no means does it follow that we must blame the liver for all this disturbance; we might as well inculpate the bowels for troubling us with bilious diarrhœa; or the skin because it cannot help looking yellow. Again, constipation is not necessarily a disease of the bowels, it may be presented as the effect of a diseased condition of some other organ, therefore to relieve constipation by purgative medicine is not curative treatment but palliative; if we discontinue the purgative the constipation may remain persistent, and generally does. If we examine an organ after death and find its structure altered, it being known that its function was impaired during life, we are not constrained to charge the altered structure as the cause of its disturbed function, the latter may have been the cause of altered structure, and the primary cause have existed in some other organ. We might pursue this theme, but have merely given an example to impress on the non-medical reader that the cause of disease is one thing, the effect of disease another; and that the treatment of causes, instead of their effects, will inevitably tend to change medical practice from an art, in the exercise of which assiduous attention and profound learning are often barren in their results, and elevate it to a position in which true science will lead the physician primarily to assail the source of diseased actions.

We venture to set forth a truism which must be acknowleged by our medical brethren, (we hope we do this not

egotistically but with all the modesty which is compatible with the assertion of truth), when we state that the "first great law of health is attention to the function of the respiratory process, or a proper observance of the relation which should be maintained between oxydizable elements taken into the blood from the food, and free oxygen derived from the atmosphere and supplied to the blood through the agency of the lungs and skin." It cannot be denied that the application of this, the first, the ruling law of health, to the cure of disease, has been almost wholly overlooked in routine medical practice.

It would be perfectly possible, and indeed easy to show, that a large proportion of diseases have their origin in a violation of this law, especially amongst the higher circles and wealthy middle classes of society, where the conventions of fashionable life, or the sedentary habits of close application to business, where constant over-working of the brain and nerves, and under-working of the lungs and muscles, inevitably lay the foundation for disease by preventing the due performance of the respiratory functions.

The only approach to an observance of this law, as a portion of healing practice, is when the physician tells his patient "I can do no more for you; you must go to the country and breathe purer air, rise early, live temperately, do not take too much physic, and there will be reason to hope for your recovery." How much physic is usually taken before this advice is given? What does this advice mean but in other words "Change your bad habits and take more oxygen into your lungs; vitalise your blood with oxygen; oxydize its oxidizable products, and thereby purify the blood in the natural way from compounds which are poison in your circulation; regain health by returning to an observance of its first principles."

No animal heat can be maintained without a sufficient supply of oxygen; no vital electricity can be developed without oxygen; no healthy secretion or needful excretion can be effected with an insufficient supply of oxygen. Oxygen the most largely diffused of all ponderable elements; it forms one half of the solid matter of the earth, eight-ninths of its water, one-fifth of its air; in its electric condition it is negative to every other element or compound of elements; its relation to the body is an analogue of the Divine influence

to the spirit. The bodily life cannot subsist without it; the health of the body depends on the blood receiving its necessary supply of this all-important element. Since our well-being, as to health and organization, depends on oxygen, so does our appropriation of oxygen depend upon the condition of the atmosphere respired, upon the condition of the lungs and skin, and upon the supply of elements in the blood with which oxygen can enter into combination.

Every atom of the body is secreted or made from the blood. The blood is secreted or made out of the food which is taken into the stomach. The substance of the whole body is, as long as we live, in a continuous state of change; we are wearing out and renewing the material elements of the bodily fabric daily, hourly, we truly may say momentarily. These changes are effected by a constant series of chemical decompositions and re-compositions. While we exist the body is a great laboratory; its organs are chemical apparatus and instruments; the constituents of blood and oxygen the elements to be operated upon.

The elements of food which combine directly with oxygen in the circulation are either hydrogen, carbon, or compounds thereof. They are supplied by ale, wine, alcohol, gum, sugar, starch, oils or other fatty matters, which are as necessary to the generation of animal heat as fuel is necessary to the generation of heat in our stoves or hearths; the process is identically the same in either case, hydrogen and carbon combine with oxygen, form water and carbonic acid, and develop heat. If these elements are not supplied to the blood, it cannot take up oxygen enough to maintain the heat and vitality of the body; and the portion of oxygen which is absorbed may also destroy the fat deposited in the tissues and cause loss of substance. If, on the contrary, these elements are supplied to the blood in too great a proportion for the oxygen inspired or absorbed, a portion may be deposited as fat (a disease if excessive), but any surplus not deposited as fat, will invariably commence a series of unhealthy actions which must, sooner or later, become disease. The former is the exceptional case, *e.g.* starvation; the latter is the rule, which peculiarly applies to the wealthier classes of society.

The intelligent reader who has had the patience to peruse our remarks thus far, will anticipate that the application of chemistry to pathological conditions, and the use of oxygen

therapeutic agent to remedy these conditions when im-
d, are facts which we are about to state as being of vital
rtance in the treatment of disease, but which have not
ved the attention which they merit from the leaders, or
majority of our profession. This is our case as far as
plies to the use of oxygen in both its primary and its
e relation to the respiratory function. We are perfectly
izant of the laborious researches made by highly talented
siologists and pathologists, with the aid of the microscope
analytical chemistry, in the endeavour to trace disease
s origin. We would not for a moment attempt to under-
e their contributions to science; but we venture to add,
hope modestly), that the direction has hitherto been
rmined to the elucidation of effects rather than causes.
simplify our meaning—suppose a disease exists; chemistry
lyses the secretions and detects in the urine a salt which
ever found in the normal healthy fluid, and is always
nd where the presumed disease exists. This fact ascer-
ed, our scientific brother somewhat hastily concludes
t the presence of this salt is the cause of the disease
endeavours to cure by neutralising and promoting its
cuation. No one can doubt that this treatment to a cer-
n point is perfectly correct; but is it not rational to
ceed further; to ascertain why this salt has been pro-
ced in the body; and to counteract its future formation
administering a remedy which by timely use would have
ogether prevented the disease.

In this little treatise we will not weary the reader by
tering on details of medical science which can only be
derstood by (and therefore can only interest) those who
ve the knowledge derived from sound medical education.
herwise we would undertake to shew that a very large
oportion of diseases, although dissimilar in their effects,
ve one common causation, *viz*:—in a disturbance of the
rmony or balance of relation which should exist between
e oxydisable principles of circulating blood and the supply
free oxygen which ought to combine with and oxydize
em. We would show that this disturbance is not beyond
r control; is not a special infliction of Divine provi-
ence, but the necessary consequence of a violation of the
reat laws of health—a consequence which almost seems
rced by the obligation to "do as others do," to live a

conventional and artificial life, instead of that which w primarily ordained for us.

As the science of medicine cannot, by an authoritative fia change the habits of society, its application as healing ar should be so directed as to make adequate compensation f the bad effects of such habits, and thus attack disease at th root instead of wasting strength on its branches.

Physiological science teaches that the full standard animal heat is essential to the maintenance of the full measu of health and vitality; organic chemistry says—that anim heat must be generated within us; that a deficient intern fire cannot be adequately compensated by artificial heat external fires;—that the internal fire is alone maintained b hydrogen and carbon supplied to the blood and oxyge supplied to the lungs. Medical science instructs that whe the due relation between the demand for and supply of thes elements in the animal economy is not observed—the seed of disease (to germinate ultimately in some form) ar deposited in the system, and that when one organ does n perform its task other organs are over worked and injure by making compensation for its deficiency.

The prince of organic chemists, the celebrated Justu Liebig, concludes his remarks on this subject with th following:—

"*Respiration is the falling weight, the bent spring, whic keeps the clock in motion;* the respirations and pulsations ar the strokes of the pendulum which regulate it. In ou ordinary time-pieces, we know with mathematical accurac the effect produced on their rate of going, by changes in th length of the pendulum, or in the external temperature. Few however, have a clear conception of the influence of air an temperature on the health of the human body; and yet th research into the conditions necessary to keep it in the norma state, is not more difficult than in the case of a clock."

"In the animal body we recognise as the ultimate cause of all force only one cause, the chemical action which the elements of the food and the oxygen of the air mutually exercise on each other."

Our view is, that the true principles of medical science point to the cure of disease by attending when necessary to the due supply of oxygen to the blood, and that in every case which has its origin in a deficiency of oxygen, it is

FECTLY RATIONAL AND CONSISTENT WITH SCIENCE TO PLY OXYGEN BY ARTIFICIAL MEANS. If it can be shewn t a greater proportion of cures are obtained by this atment than by any other, we are entitled to insist t our view is not hypothesis, but medical truth, based science, and supported by facts.

Half a century has elapsed since Dr. Beddoes, Sir Humphry vy, and others, were led to make various experiments h a view to ascertain if gases might not be advan- eously employed as valuable curative agents. At that iod these eminent pioneers in an unknown and untried ion of medical science had not the immense advantages ich we now possess; chemical pathology had not then been iched by the laborious researches of Mülder, Berzelius, bbig, and other eminent chemists and physiologists; refore they had to work in the dark, and much as we mire their zeal, we cannot wonder that their investigations re not wholly successful. The surprising and gratifying ults, which have since been obtained from the employment gaseous remedies, dawned upon the mind of Dr. Beddoes, t he confessed himself beaten in his endeavours to make his stem universally applicable in medical practice by chemical l mechanical difficulties which he could not overcome, even ough he had a Davy and a Watt to assist him. In con- quence of Dr. Beddoes' theory, the late Dr. Daniel Hill of eat Russell Street, was induced to make a trial of oxygen a medical agent; his success was extraordinary; and he bsequently published the results in a treatise, the existence which is known to but few of the present generation of edical men.

Dr. Hill tells us that he had himself been a great sufferer om gout and nervous irritation, that he could obtain no relief natever from several of his learned medical brethren; and at he then had been induced to try oxygen, and in a few eeks completely recovered his health and strength.

Laying aside all consideration of trouble and loss of time hich the preparation of oxygen *then* entailed upon himself, well as the uncertainty of its clumsy administration (both ow happily overcome), he immediately began to employ it in s practice.

We quote the following of his cases, in an abridged form, prove that these valuable curative facts are not new to

medical science, although they have been forgotten or overlooked by the faculty.

SEVERE DIARRHŒA (CHILD DYING).

This was the child of Mrs. Forder (late rocking-woman to her Royal Highness the Princess Charlotte of Wales), which from its birth was weak and delicate.—Had tolerably good health until two months old when a complaint in the bowels came on. Several medical gentlemen of high standing attended during a period of three weeks, yet, notwithstanding, the disease progressed, until the child was pronounced in a hopeless state, with but a few hours to live.

Ordinary medical aid being thus of no avail, the distressed mother as a *dernier resort* was induced to try oxygen treatment. The child was conveyed some distance in a carriage, and upon reaching Dr. Hill's house appeared in the jaws of death. He thought it dying, but immediately forced some oxygen into the lungs to give it a last chance for life. The child almost immediately opened its eyes, presently smiled, and left the house quite lively. By continuing the administration of the gas daily for a short period, complete recovery of health and strength took place.

GENERAL NERVOUS DEBILITY WITH PARALYSIS OF EYE-LIDS, &c.

Mr. Dodd, Silversmith, Aldersgate Street, from much confinement to business and writing, felt great nervous debility.

At length he became so much worse, with defective vision and paralysis and pain of the eye-lids, that he was altogether incapacitated for business. Various medical practitioners of eminence were consulted with partial but temporary benefit. Soon relapsing he was recommended to go to the sea-side. This, and subsequent courses of medicine continued for a considerable period, checked his complaint for about two years, when all his former symptoms again appeared in an aggravated form. Vital air (oxygen) was at length recommended. This treatment he pursued for between one and two months, at the termination of which period his health was perfectly re-established. Four or five years afterwards it was ascertained that he continued quite well.

DEFORMED CHEST WITH SCROFULOUS GLANDULAR SWELLINGS.

The son of George Ford, bookbinder, was weakly from infancy, and his very narrow and ill-formed chest characterised a constitution predisposed to debility and disease. At five years old, many scrofulous swellings appeared on various parts of his body, accompanied by extreme weakness of body and torpor of mind. Various remedies producing no effect, oxygen was recommended. At the commencement of this treatment, the several ill-conditioned scrofulous tumours were discharging a very offensive fluid; his pulse beat 100 in the minute; his countenance was cadaverous, &c. &c.—he was carried about not being able to walk. Six weeks afterwards this child was able to walk with ease to Dr. Hill's house; the glandular swellings which had been discharging for months had healed; the chest had become more enlarged; torpor of mind was

e removed; and he had grown at the rate of one inch a month. hin three months every unfavourable symptom had gone. So com- ely were the powers of his constitution restored, that few boys rwards in London could boast of equal health and strength.

ENERAL DEBILITY AFTER CONFINEMENT AND SUCKLING.

Mrs. Holehouse, Southwark, naturally of delicate constitution, was ged to discontinue suckling her child, then three months old, being ed with nervous irritation, loss of appetite, want of sleep, and a eral diminution of strength.

After a few months, medicine being of no avail, change of air was d. This proved useless, and she was much weakened by profuse iodical discharges, as well as constant laxity of the bowels. When commenced the oxygen, she was reduced to a mere skeleton; her rits were very low; her appetite so bad that she could not eat so ch as the quantity of half an egg daily; her medical attendants had d her that she must prepare for death. In a few weeks afterwards, ly inhalation had so restored her, that she was able to take walking ercise; appetite had returned; bowels, &c. were perfectly healthy. four months Mrs. H. had the satisfaction of finding herself perfectly ll.

RRIBLE CASE OF DISEASED BONES, AND BODY COVERED WITH SCROFULOUS ULCERS.

This was the daughter of John Parks, a coachman. When eight onths old she began to be afflicted with small humours on the face, eaking out into troublesome sores. No medical or surgical means oduced any benefit. By degrees the disease extended to the bones of e face and head. The horrible misery of the little child was not nited here; the body, arms, legs, thighs, and knee-joints became vered with ulcers of the same character. During a period of two d a half years every mode of treatment failed. One season in the ospital at Margate produced some little benefit, a second failed ntirely. At length, but with little hope, she was placed under xygen treatment. This, with such tonics as the state of constitution eemed to require, soon improved the general health so much, that the ores healed, the diseased dead portions of bone separated, and in six months she was perfectly cured. She grew up to be a strong healthy oman.

ALIGNANT ULCER OF THE LEG, AND TUMOUR OF THE BREAST.

Mary Berridge, æt. 23, stated that five years previously after severe ever, a hard tumour appeared in the calf of the leg. This tumour ubsequently broke out into malignant ulcers. At length it became o bad that amputation was recommended in the Middlesex Hospital. This she declined, and left the Hospital incurable. After this she ried country air and was under various medical treatment, but the eg became worse, and in addition she began to suffer from tumefaction nd constant stabbing pain in the left breast. She now entered St. George's Hospital, where amputation was declared necessary;—she efused to submit and left as incurable.

At length she consulted respecting oxygen. A thick, perfectly black substance surrounded the whole of the muscles of the leg, with intervening deep and painful ulcers, exuding a most offensive ichorous black discharge. The breast was very hard and painful; she had no sleep except from opium, and was in a most exhausted state. Recovery could not be expected, but oxygen was administered as a forlorn hope. In three weeks the vital powers were so much increased as to enable the parts to throw off daily large black sloughs. Healthy action was soon set up, and with the aid of some other gentle remedies, she was in two months completely cured; her breast also being quite well.

NEURALGIC PAINS IN THE FACE, JAWS, AND TEETH.

Miss ——, naturally of good constitution, had been for twelve years afflicted with constantly recurring attacks of swelling and pains, lasting frequently for weeks and months at a time. Many teeth had been extracted, various physicians had tried everything—medicines, change of climate, but all failed. At length the severity of the paroxysm became so intolerable that two hundred drops of laudanum did not procure an hour's sleep for many weeks; and in consultation it was considered necessary to perform a very severe surgical operation upon the face. Dr. Hill, however, after much difficulty, induced the other medical gentlemen to consent to give a fair trial to oxygen, before resorting to the extreme measure. The first dose of gas took away all pain, and without any opium she had seven hours' continuous sleep. The paroxysms of pain of course returned occasionally, but by continuing the oxygen daily for three weeks, she got quite rid of her sad complaint, which had previously rendered life miserable.

EPILEPSY WITH PARALYSIS.

Ann Bridges, 17 years of age, "was suddenly seized with a kind of epileptic fit," which, after violent fever for some weeks, terminated in complete paralysis of the left side. After the trial of all means of cure in succession for four years, she was pronounced incurable. At length she could with difficulty cross the room, even with crutches. Oxygen was then tried, and in a few weeks she perfectly recovered, and was able to work as usual.

AGUE, ENLARGED SPLEEN, DROPSY, ETC.

Mrs. Priest, Strand, was seized with intermittent fever in Essex For three years all the remedies of different physicians failed to relieve her. At last she became so weak as seldom to be out of bed for more than two or three hours at one time. Enormous enlargement of the spleen took place, and it gradually occupied the whole of the left side of the abdomen, causing dropsy of the lower extremities. The liver also was affected. After some hesitation she was put under oxygen treatment. In ten days the paroxysms of fever were shorter and less violent; in a fortnight the ague disappeared;—a month afterwards she was perfectly cured. Some enlargement of the spleen still remained, but was of little consequence, and afterwards gradually disappeared.

CHRONIC RHEUMATISM OF SOME YEARS' STANDING.

Richard Gorges, Esq., when 30 years of age, was attacked with ght rheumatic fever. A month after, he had another but very severe ack, which left him with much stiffness in the joints. Buxton, &c., proved him, but the right knee continued weak and painful, incapa- ating it for use. Sometimes better, sometimes worse, thus passed e years. There was now extreme debility, and bad habit of body; knee-joint had become thoroughly diseased; his countenance was ath-like;—altogether he was a miserable object. Amputation was vised as his last resource. Oxygen being tried, in six weeks he s able to walk a mile without pain, and in the course of six months could walk 10 or 12 miles without any inconvenience. Subse ently he enjoyed excellent health.

HYDROCEPHALUS.*

Child of William Bennett, seventeen months old. At six months d small pox, succeeded by epilepsy; then inflammation of the eyes; er which the head began to enlarge until the sutures opened to a nsiderable extent and allowed the fluctuation of the water to be dis- ctly felt through the membranes. Pulse weak, beating 100 per nute: pressure on brain had caused total paralysis of extremities. sse was considered hopeless, oxygen treatment tried;—in one week e child began to show improvement;—in a month the head was duced nearly to its natural size, the paralysis of the limbs was cured, d by continuing the treatment perfect recovery was soon accomplished.

EPILEPSY.

Charles Dare. This patient was quite healthy until eleven years d, when fright at his father's house being on fire caused his first fit. edical treatment pursued for years availed not; the disease increased ntil he had eighteen or twenty violent fits in twenty-four hours, lost s hearing, the vision became weak and the memory and mental powers ere so impaired that his education could not be attended to, and his arents feared to have him left alone lest he might fall in the fire or eet with some accident. Dr. Hill had infinite difficulty to make him mprehend how to inhale from his apparatus. The effect of the first plication of oxygen was unusual warmth over the whole frame, erspiration, and a suspension of the fits for the whole day and suc- eeding night; a circumstance which had not occurred for many months. n six weeks his fits were cured, he regained his vision and hearing, could alk six or seven miles a day, and in twelve months, being perfectly ee from every symptom of his former complaints, his health was fficiently re-established for him to enter on a situation as clerk to a rm in Barbican.

PARALYSIS.

John Rogers. Healthy until seven years old, when at play he fell ut of a hay loft. He was very much cut and injured, and before he covered from the effects of his fall was attacked by small pox. uring the progress of the attack the pustular eruption was suppressed, total palsy of the lower extremities ensued with want of control over

* Water on the Brain.

the sphincters of the bladder and lower bowel. This state continued for five years, he could only crawl by dragging his legs after him, the state of sphincters was not amended, and the spine gave evidence of being also involved. Tried oxygen treatment—the result was that in six days the powers of the rectum and bladder were restored to their natural functional condition, and in six weeks the boy was able to run and walk without any difficulty whatever.

HIP-JOINT DISEASE.

Sophia Porter, at twelve years was attacked by fever with violent pain in the hip-joint, became unable to move and was confined to her bed. After eight months' suffering a large tumour formed near the middle and outside of the thigh deeply seated under the fascia, another presented in the groin. These swellings remained stationary, but the limb lengthened, and the muscles from the thigh to the foot wasted until there was only a thin cadaverous extremity. No medical treatment seemed to exert any curative influence. When Dr. Hill first saw her the pulse was 140, and she appeared to be fast sinking from disease and debility. Under the oxygen gas treatment she rapidly gained strength, the limb increased in size and power, the tumours suppurated, discharged the usual curdy matter, and healed; by perseverance she regained the use of her limb, and was restored to average health.

Another case is given of Miss Waring, (niece to an eminent surgeon of St. Thomas's Hospital,) who had enlargement of the knee-joint with necrosis of the head of the tibia. Her case was known to all the principal surgeons in London, who considered amputation of the limb absolutely necessary to save life. Mr. Hill put her under oxygen treatment, and speedily accomplished a perfect cure.

SEVERE CHRONIC COUGH.

Miss ———, aged 13 years, of delicate habit, was seized with, to all appearance, a common cold which continued above a week, when suddenly the cough came on with a degree of spasmodic action that changed the sound of coughing into a kind of barking. These fits increased in violence and duration, until they gradually exhausted her strength. Under general medical treatment for three months the symptoms nearly disappeared, but she was much redneed in strength.

A month or six weeks afterwards some sudden surprise again produced this nervous cough, sixteen or eighteen fits occuring in twenty-four hours. The young lady's pulse being now very weak and quick, and her general appearance very delicate, oxygen was recommended. In the course of a few days the fits of cough were less violent and were reduced from eighteen to four in twenty-four hours. A fortnight after the commencement of inhalation, cough was nearly gone, she had in this short period grown fully half an inch. She took leave. Three weeks subsequent she called upon Dr. Hill to thank him for her complete recovery, judging that her growth must have continued, he again measured her, but to his surprise found that there had been no advance in height whatever. This fact is given as an example of the power of oxygen in promoting the growth of young people when delicate and stunted in height.

XTRAORDINARY CASE OF DEFORMITY AND ARRESTED GROWTH.

Thomas Mazey, in his infancy suffered much fever, &c., and from a ombination of subsequent causes he was, when 11½ years old, incapable f walking or even moving without crutches; his height was no more an 3 feet 3 inches; his weight 49 pounds. The long continued eakness had not only thus overcome the natural powers of growth, ut at this period he had only two of the adult teeth, and four only emaining of the first (or milk) teeth, and these very much decayed. His countenance was cadaverous, his mind torpid, his skin peculiarly ough, his legs were turned out of the perpendicular, the bones being overed with rough projections, and altogether he was such a mass of eformity as language cannot describe.

As an experiment, at the above age, he was put under a course of xygen. In 10 days he was evidently stronger; in a fortnight more, e had grown in height and could move with ease. Thus he continued radually improving for 3 months, when he was found to have grown ½ inches, and to be 1¾ pounds heavier; he had cut two new teeth, and any more were forming in his gums, and his strength was so much enovated, that he could walk across a room without either his crutches r a stick.

The inhalations were continued for 12 months longer, at the termina- on of which period his weight was 61 pounds instead of 49, his height as 4 feet instead of 3 feet 3 inches, and he had cut 8 new teeth. The rooked deformed legs were two inches straiter; the projecting portions f bone were nearly absorbed, the angular roughness gradually became ore rounded, the skin was soft and smooth, and its colour more healthy nd ruddy. This boy afterwards became quite strong and active.

By refering to the past history of pneumatic medicine, and hewing what has been done by its use, we lead by rational nference to the results which may still be anticipated from ts employment; for it is quite reasonable to expect that any urative agent which proved wonderfully successful half a entury ago, must still succeed in similar cases, if it be fairly ried. *The statements of its utility in former practice are fully erified by the result of our own, and justifies us in asserting—hat the use of oxygen as a remedy, accords with science, is a aluable addition to our Materia Medica, and meets emergencies hich the profession at present are not able to overcome.*

We do not recommend the inhalation of oxygen as neces- ary in *every ordinary* case of disease which may readily uccumb to the usual routine of treatment. But there exists large class of unfortunate sufferers, in whose cases we xpressly guarantee that its judicious employment will cer- ainly be followed by the most satisfactory results. Many of hese sufferers, having experienced no relief from the most

judicious routine treatment, and having been informed that their cases are hopeless, resort to ignorant quacks, who, although not possessing the most remote knowledge of even the principles of medicine, promise to effect cures by their "secret remedies."* This goes on until either death quickly closes the scene, or life prolonged is but a misery.

To apply oxygen is to use "nature's cure;" yet we would not now so strongly advocate it, did we not conscientiously feel that our present advocacy must tend to the mutual advantage of the public and of our profession. Why should invalids be driven away from their medical friends by discovering that their complaints have not yielded to the most careful adaptation of routine treatment, when, by the judicious use of oxygen, such ailments would soon disappear? Frequently, when unaided, it will eradicate the worst diseases; but where it is used as an adjunct, we find that routine medicines, previously useless, or worse than useless, quickly become valuable. The explanation is simple. Medicines can only act upon the vital force already existing in the body—they cannot, *per se*, increase the quantity of vital force. The quantity is obtained by the mutual co-operation of food and air (*i. e.*, oxygen). These, however, in numerous instances, are not capable of any longer producing their usual action, in consequence of ill health having brought vitality to so low an ebb as to deprive the various organs of their due power of causing the necessary changes in the food taken, and of thus fitting the blood for the renewal of vital or nervous energy by means of the air in the lungs. When this occurs, life must be prematurely exhausted, unless we can artificially restore its rapidly departing powers. This can be done by inhaling an increased amount of nature's great vitalising agent, oxygen. A timely and judicious administration of this (we may very properly call it natural) therapeutic, will immediately create a powerful augmentation of vital force even in the worst classes of disease, without subsequently causing any corresponding depression; and thus the most desperate cases, where everything else has been acknowledged of no avail, may revive, and ultimately be restored to perfect health.

* It ought to be known by the public that there is "nothing new" in any quack medicines. Each and all contain some one or more drugs from the *Materia Medica*, frequently employed in every-day routine medical treatment.

To ask ourselves here one question may not be *mal-àpropos:* Why should cod liver oil, (one of our most valuable medicines when properly used), confer so much benefit in consumption and some other diseases; and how does it arise that infinitely more success results from its use in pure country air than in town? Not a few town practitioners have told us that they place but little reliance upon cod liver oil; country practitioners on the other hand (those who have largely employed it), with one voice tell us it is an invaluable medicine. We ourselves, having held considerable practices both in town and country, can fully bear witness to this truth. Whenever we have been able to enjoin a plentiful supply of country air, and rooms well ventilated with breezes of the same, we have invariably found great benefit, not unfrequently complete success, from the oil in the treatment of consumption. Of other scrofulous diseases as well as of chronic rheumatism and paralysis, we can speak still more strongly. What we know of the experience of others, conjoined with our own, leads us emphatically to aver that but few cases of the above classes will be found incurable if oxygen treatment be used with cod liver oil. Physicians are not agreed upon what the beneficial effect of the oil depends. Probably, being a very fluid oil, a portion may easily be absorbed directly from the stomach and the rest digested, or it may be all digested; at all events, through its hydrogen, carbon, and perhaps elements of bile which it contains, it affords to a debilitated constitution easily digested materials, quickly taken into the blood, and thus increases its power of appropriating oxygen. The oil often disagrees and overloads the liver. Why? Because the proper balance of relation between the hydrogen and carbon of the oil supplied to the blood, and the oxygen inspired by the lungs has been overlooked—more oxygen has been required, and not supplied, otherwise the oil would have agreed perfectly well.

Oxygen is an exception to the general rule of new medicines; it can already afford to stand on its own merits. Its existence has been long known;—former (though necessarily imperfect) experience gave us the clue to its medicinal power; science has now rendered it easy of application, and has *fully* explained its mode of action on the constitution (the case with no other medicine); present experience confirms the past; and lastly, the laws of nature endorse all our scientific and practical

knowledge of its therapeutic effects. Successful cures have proved, and are proving, the value of this remedial agent. A new era will certainly take place in medicine, and many cases of liver disease, apoplexy and paralysis, gout and chronic rheumatism, scrofula and consumption, asthma, boils and carbuncles, nervous and neuralgic diseases, dysentery, ague, inveterate eruptions, &c., now considered incurable, will no longer remain so.

A few words regarding that fearful disease, cancer, ought not to be omitted.

Temporary benefit may be, and not unfrequently is, afforded by extirpating local cancerous deposits with the knife, or by the application of various caustic substances, causing the diseased part to separate and slough off. Soon, however, fresh deposits take place, either in or near the recently healed surface, or in a more distant and perhaps less accessible locality (*e. g.* the uterus); for *true* cancer is in the blood, and can only be eradicated by means affecting the entire constitution. No remedy hitherto employed has proved in the slightest degree available for the latter purpose, and the wretched sufferer has invariably sunk into the grave, worn out by the terrible disease, and the fruitless operations undergone with the hope of a cure. The term *true* cancer is here used, because (as the experience of every well-informed medical man can attest) sufferers are constantly misled by pretended *cures* of this malady put forth by quacks. Now there are many and various swellings simulating *true* cancer, yet of an entirely different nature, and easily curable by ordinary means, but the subjects of them are soon frightened into the belief that they have this dreadful disease. Some treatment is then adopted, and, success following, another *cure of cancer* is put forth. We will merely add that we have good reason for hoping that oxygen, as an adjunct to other means, will cure many (if not all) cases of true cancer, when properly employed in the earlier stages; and that even in the most advanced stages complete recovery is by no means improbable; for we have lately observed its remarkable power in rendering the system capable of throwing off diseased masses, healing the cleansed surfaces, checking further progress of the disease, and affording the patient the only chance of tranquil sleep, appetite for food, and general comfort.

In one very peculiar class of maladies, which frequently

en life is spared), entail ruin and miserable existence n the invalid, we can with truth aver that a judicious use oxygen generally acts almost like a charm. We refer to various forms of disease contracted in oriental climates, ., diseased liver, jaundice, and dysentery. We have erved dysentery, &c., of several years' standing, where most eminent physicians, Indian and European, have ed with the most powerful medicines, recover in a suringly short space of time under the influence of oxygen.

Our space is necessarily too limited to notice and combat eral positions taken up by a scientific few, otherwise we ld shew such positions to be clearly untenable. This we e to do in a larger work. To a little misapprehension n one point, however we will refer. It has several times n remarked, "We can well understand the effects proed by oxygen, if the patient were allowed for twelve hours tinuously to *breathe in* an atmosphere of the gas, but oxygen can permanently benefit by daily inspiration a brief time,—we cannnot comprehend, it cannot be sible." To this we would reply that *theoretically* we fail detect the difficulty thus raised, practically our successful ults altogether ignore it. Other medicines, taken (as the e may be) once, twice or thrice a day, are readily acknowged to produce a more or less permanent effect by altering morbid condition upon which the disease depends. Why uld not, at least, equal influence be adjudged to oxygen? ain, it ought to be borne in mind that all the blood in the y passes through the lungs and heart in about five or six utes, and consequently that every part of the body is ing that period subjected to the action of the increased ount of oxygen inhaled.

In commencing this little Pamphlet, it was not our intention give any of the successful results in our own practice, but rely to add, that they *fully* corroborate the extraordinary ure of the cures of Dr. Hill. We could select many other es from Beddoes, Thornton, &c. &c., if space allowed.

We cannot, however, close without stating a recent case which oxygen peculiarly demonstrated its power as a ative agent,* and the history of which may interest others.

We intend shortly to present our professional brethren with some resting details of the successful use of oxygen in our own practice.

A married lady, æt. 51, residing in Cheltenham, w persuaded to visit London for the purpose of placing hers under our care. For some years she had been a mart to ill-health and mental anxiety. During the whole last winter and spring her debility (mental and bodil much increased; constipation which for fifteen years h necessitated the frequent use of aperients, gave place a rather relaxed uncomfortable state of the bowels with ve troublesome flatulence; formerly robust, she became mu attenuated, for the digestive and other organs were weak, that the system could only appropriate a very sma quantity of the food taken. For some years she had al been subject to a very annoying eruption of a lepro character about the ears and temples. A few months a she caught a bad cold, which owing to the debilitated sta of her vital powers remained unsubdued and degenerate into severe chronic bronchitis. Her eye-sight became ve dim; hearing much impaired; the senses of taste and sme entirely lost; there was a constant feeling of chilliness an feverishness even in the warmest apartment; and althoug formerly an excellent walker, she became unable to take th slightest exercise without great fatigue and pain in the back the lower extremities almost refusing to support the weigh of the body. She felt in her own language "as if all he senses were going, and that she could not last long." Th catamenia, formerly of natural character, ceased last year.

May 12*th*, 1856.—This lady could just crawl into our con sulting room. Her countenance presented a yellow, anxious miserable appearance; eyes could not read even the larges print; with great difficulty could she be made to hear th questions put to her; she had no sense of taste or smel whatever, even when substances of the most powerfull odoriferous and bitter nature were applied to the respectiv organs of those senses; the head felt oppressed with constant weight and tension; the back of the neck and hea very stiff and painful when moved; the face was drawn t one side, and upon being requested to shew her tongue sh involuntarily protruded it towards the right side. She experienced much weakness and pains in the loins (ovarian congestion); complained of always being chilly and cold; and moreover she suffered from constantly recurring paroxysms of distressing spasmodic cough, accompanied with copiou

cous discharge from the bronchi. Abundant evidence was rded that this unhappy patient was in the very jaws, of at must have been under the circumstances, a fatal attack paralysis.

A strong dose of oxygen was immediately administered, l we had the surprise and satisfaction of finding that in minutes all the oppression about the head had left her; ldenly she exclaimed, "Why, I can hear everything you ; perfectly." In a few minutes more she felt so much igorated that she walked round the room quite astonished her rapid acquisition of strength. In half an hour after entered the room, just as she was taking leave, she uptly turned to a book on the table and almost screamed declare I can see every word." To which we rejoined, nly the large print, I suppose." "Oh, no! I can read very small print," and taking up the book she proved t she could. Subsequently we were informed that in the rse of the following night the catamenia again made ir appearance after many months' cessation, and that the k, &c., were quite relieved.*

For four days, inhaling daily, our patient gradually pro-ssed in strength; yet we were not quite satisfied with one nt, *viz.* the persistent chilliness. The oxygen was then hed further. The first very large dose had at once the ired effect of creating a full genial warmth through the em, which continued for the whole day; but there being he evening some slight return of coldness and shaking, a nd dose similar in strength was taken—after this the ural warmth was permanently re-established. Oxygen continued daily in smaller doses for a period of six weeks. hree weeks after the first inhalation, the senses of taste smell were completely restored; in one month the severe gh had quite disappeared; and before the termination of six weeks' treatment our patient was able to walk many es without the slightest inconvenience. She then left don, merely complaining of some remains of the old otion upon the ears and temples. *En passant*, we ought to omit to name one or two other points of this interesting . The complexion, which for several years had been

*It should be here remarked that there was (and this is always the in using oxygen) no subsequent depression. The improvement permanent.

muddy-yellowish and much wrinkled, soon assumed so fair a appearance as to astonish her friends. From the very commencement of the inhalation, the very troublesome flatulen distension of the bowels disappeared, and the evacuation regained their healthy appearance.

In conclusion, it may be necessary to explain to the reade what is meant by "oxygen treatment." The principle is that, if ill health has arisen from a deficiency of the vitalizing element oxygen, an increased quantity shall be afforded b artificial means, and thus medicinal compensation be made fo the circumstances which are the primary cause of loss of vita power and health. This is accomplished by making th patient daily inhale for a short time, according to the natur of his case, certain exactly measured proportions of pure oxy gen gas mixed with atmospheric air. The application of th remedy is so simple that a child can easily be subjected to it its effect is so immediate and strongly pronounced that th ordinary medical attendant with a little practice and ex perience may safely direct it. Nevertheless, the dose required and the effects produced vary so much according to the patient's constitution, and are so different from wha our medical brethren, who have never tried it, will be led t anticipate—that, we are constrained to say, they mus practically study its action before they can realize full suc cess from its use. Taking a retrospective view of our own professional feelings we well know how universally prevalen is the erroneous idea that oxygen must stimulate the vita functions prejudicially. Experience will teach otherwise Judiciously administered it does not cause unhealthy excite ment—it gives tone to the muscular system—it increases th desire for food by augmenting the power of digesting and assimilating it—it calms the nervous system by diminishing irritability—it promotes the activity of the excretory organs— it increases the force of the circulation in the capillary system and thus removes and prevents congestion—the extremitie become warm under its influence—the pallid skin assume the ruddy hue of health—the patient has a "feeling of light ness" (so he describes it) and a tendency to be cheerful and se the "bright side" of circumstances which makes him happy and powerfully promotes his cure. He feels that he has something to help him which acts like a cordial and does

nauseate like pills and draughts. When carefully ited with air and given in proper doses—it gives tone and ngth and never produces morbid excitement; it may be rectly called a permanent stimulant and tonic, for it excites l functions without ever causing subsequent depression. nd medical knowledge should teach the physician to help ure by increasing her forces;—give her the power, the *vis licatrix*, and trust to her instinct to direct its application. will always expel the intruder, disease, by the best nnel for exit. Routine treatment with depletion and gation hopes to expel this intruder in its own way and s save nature from a troublesome duty, but we may stion if nature is always thankful to the physician for his rference. Oxygen treatment is a return to the observance nature's laws; our artificial habits lead us constantly to rive her forces of an essential element—oxygen; therefore estore it again is only making compensation for our previous ciency. Science teaches positively that it is oxygen which ntains vitality—that is, nature's "*vis medicatrix.*"

We do not recommend an impracticable remedy, for an rument invented and patented by Mr. Barth, of 46, Regent us, Piccadilly (who will afford all needful information), lers this method of curing diseases just as practicable the patient's house when desired) as the use of ordinary licine. The principal feature in the invention is a plan urnishing oxygen gas, already prepared, in a state of MICAL PURITY, and RENDERED PORTABLE by compression iron bottles, from which the doses can be measured out perfect facility and certainty. A small bottle holds an rage supply for seven days, and when exhausted, can be ly re-filled, or exchanged for a full one. The bottle is ted to a beautifully-contrived inhaling apparatus, which occupies a small space, and can be packed in a box t 20 inches square. We use the instrument daily, can therefore recommend it as perfectly accomplishing that can be required. An invalid may in five minutes n to take a dose of gas as readily as a pill or draught. sufferer, who temporarily needs for his restoration rger quantity of oxygen than is contained even in the st air, or who cannot seek oxygen in the green fields, now have it brought to his bedside, and thus regain strength which is essential to the renewal of health.

If the lungs from structural disease are no longer capabl of supplying the blood with oxygen (as in consumption) immersion of the body in oxygen, by a very simple con trivance, may make compensation for diseased lungs by ena bling the skin to absorb an increased quantity of the vita element. This is also provided for by the above invention.

In conclusion, we venture to say that this little *brochur* contains sound medical facts, which every just man is boun to disprove before he ventures to ignore. The past facts ar matters of medical history; our present assertions are base on facts in our own experience, and the results therefore o knowledge acquired by practice. We solicit our medica brother to refrain from forming any hypothesis against th efficacy of this therapeutic agent until he has fairly and i a sufficient number of cases given it a trial. We have n doubt as to the result; he will perceive that oxygen as remedy merely effects that which, according to science, i ought, and really does, in practice; and that the only meri we may claim is that we have practically ascertained the rea value of a few facts, which had previously been overlooked forgotten, or regarded as unworthy of credit.

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