

A lecture on the revival of the Turkish, or ancient Roman bath : delivered at the Grosvenor Place School of Medicine / by T. Spencer Wells.

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A LECTURE

ON THE REVIVAL OF THE

TURKISH, OR ANCIENT ROMAN BATH.

DELIVERED AT

The Grosvenor Place School of Medicine.



BY

T. SPENCER WELLS, F.R.C.S.,

LECTURER ON SURGERY,

SURGEON TO THE SAMARITAN HOSPITAL, ETC.

1860

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LONDON: JOHN LANE, 49, KING STREET, WESTMINSTER.

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The following Lecture was delivered to the Pupils of the Surgical Class at the School of Medicine adjoining St. George's Hospital on the 31st October, 1860, and was published in the *Medical Times and Gazette* of November 3rd, 1860. Although addressed to Medical Students it has been reprinted by permission of the Lecturer in the hope that it may prove of public utility.

London,
December, 1860.

LECTURE
ON THE REVIVAL OF THE
TURKISH, OR ANCIENT ROMAN BATH,

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BY T. SPENCER WELLS, F.R.C.S.,

Lecturer on Surgery, Surgeon to the Samaritan Hospital, etc.

GENTLEMEN,—During some part of the Course of Lectures on Surgery, I have always been accustomed to describe to you at some length the uses of heat and cold in the treatment of various diseases. I have endeavoured to impress upon you the important lesson that all you have learned of the physiological actions of heat and cold upon the human body, or upon certain organs or tissues of the body, must become your guides in daily practice. I hope that you have followed the very precise details which I have given of the various modes of applying heat and cold locally—the use of cold water, iced water, and evaporating lotions by means of wetted rags, and by irrigation—the application of ice in bladders, and Dr. Arnott's method of producing local anæsthesia or congelation by the freezing mixture of ice and salt. Then as to Heat: the means of applying it by flannels simply heated, or soaked in hot water, or hot decoctions—or by hot poultices, simple and medicated, or india-rubber bags of hot water; and lastly, the various modes of cauterization, either by the moxa, or the hot iron, or the galvanic cautery.

I hope that I have also explained, in sufficient detail, the indications which should guide you to the decision to use either hot or cold applications—to change one for the other—or to keep up an alternation of both. So that what we may term the *local* view of this subject is complete, but the *general* view has still to be taken. I do not think that there is any tendency in the present day to overlook the physiological aspect of Surgery. Since the days of Abernethy, there has been no tendency to under-rate the frequency of the constitutional origin of local disease. Indeed, it is only lately that we have learned from Virchow and his school, how frequently we ought to recognise the local origin of constitutional disease. You find rules carefully laid down as to diet and regimen, cleanliness, the uses of acid or alkaline medicines, purgatives, narcotics, and specific remedies, in all good works on Surgery. But action on the skin has attracted comparatively little attention. You see the word “diaphoretic” occasionally, but this means for the most part a dose of Dover's powder, or some antimonial, with hot drinks, an extra blanket, a foot bath, or, at

most a warm bath. I have always gone a step beyond this; and have shown you how to make a vapour bath by covering up your patient in blankets, or by a waterproof cloak, and surrounding him by the vapour of water from a kettle through a tube, or from a pail containing water and a hot brick, or by the vapour from burning spirit. This was nearly all we thought of, unless we sent the patient to one of the public establishments where a vapour bath can be had. Until lately these vapour baths were the utmost means at our command for inducing a profuse perspiration. But lately a very important addition has been made to our means of preventing and treating disease by the revival of the Turkish, or Ancient Roman, hot *Air Bath*. Our baths, though unworthy of the idea that we are now attaching to the word bath, hitherto have been water or watery vapour; now we have hot air. You will see at once the great importance of this distinction, when you reflect that, in the one case, the heated body is surrounded by dry air, which must favour the exosmosis of the watery portion of the blood through the coats of the cutaneous capillaries, and the endosmosis of oxygen, and at the same time must favour evaporation; while, in the other case, the body is either immersed in water, which would be absorbed in place of oxygen, while evaporation would be checked,—or it is surrounded by watery vapour which has more or less of the same effect, or by the mixture of vapour and carbonic acid evolved from burning spirit. In the one case, you have exosmosis of fluid, and absorption of oxygen; in the other case, you have neither. We shall see presently that dry air can be supported to a far higher degree of heat than air which contains much moisture, so that we can order baths of far higher temperatures than we ever thought before. All this you should be acquainted with or you will find your patients know more about it than you do yourselves, and nothing can be conceived more damaging to your prospects of professional success. If you hope to succeed, you *must* keep ahead of your patients in the knowledge of everything relating to their health. Now that hot air baths are springing up in all directions, the public are crowding to them and crying out for information about them. The first bath in this kind was erected by Mr. Urquhart at Dr. Barter's establishment near Cork in 1856. Several have been put up since in different parts of Ireland, and in some of the large towns in the north of England. Latterly we have had them in London. The first was a private bath; but lately public baths have been opened in Bell-street, Edgware-road, Palace-street, Pimlico; Golden-square, and other places. In this as in many other things our large Hospitals, with their princely revenues, have remained years behind the time. For two years the Newcastle Infirmary has had this bath, and has supplied us with some of the most trustworthy information as to its effects; yet, in London, we are left to the mercy of private speculators, while richly-endowed institutions float tranquilly along the dull stream of routine, until they are roused by a late or by fears of successful rivalry, to advance with the increasing knowledge of the age.

Let me now describe to you the

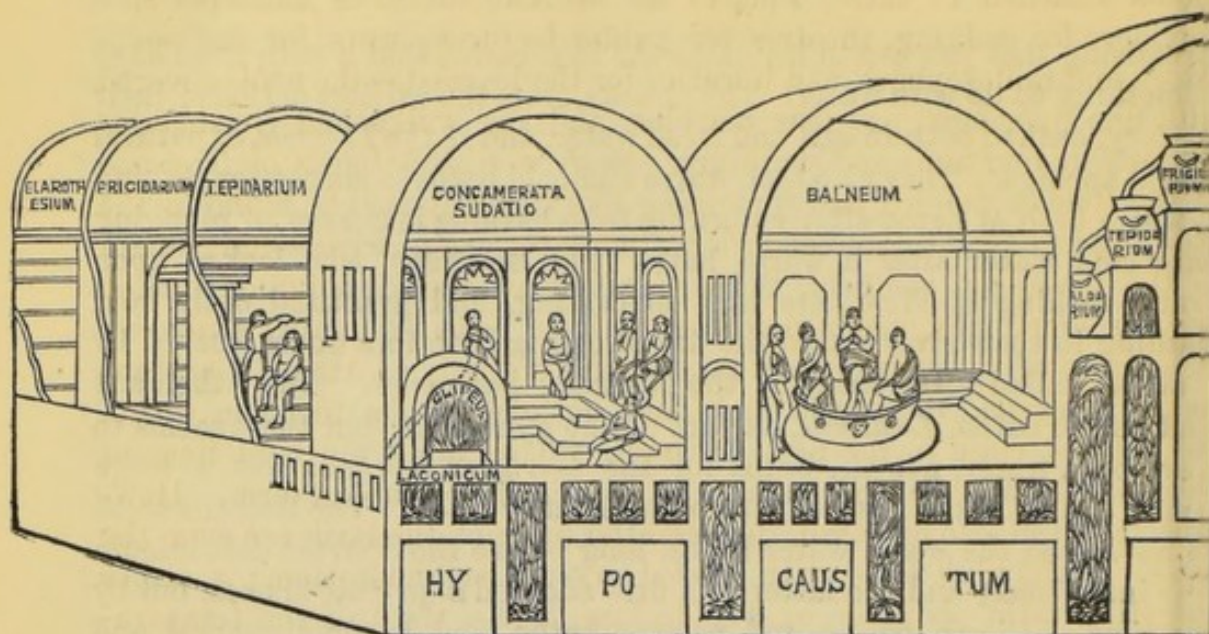
BATHS OF ANCIENT ROME,

premising that you are to lay aside the impression that a bath must have something to do with water. The Greeks, from the earliest period of their history, bathed both in salt and fresh water, and in the *Thermæ*, or natural warm springs. They also took warm and cold baths in succession, taking a warm bath at home after returning from bathing in the sea, or plunging into cold water after a warm bath. The Spartans, who looked upon warm bathing as effeminate and enervating, and practised daily cold bathing in their rivers, used the dry sweating bath in a room heated by a stove, called after them by the Romans, *Laconicum*. The Athenians had public baths, *Loutrones*, as part of the gymnasia; but these seem to have been water, not air, baths for the *λουτήρ* or *λουτήριον* was a large round or oval basin, in which the bathers sat or stood. The Romans seem to have used the warm water baths, long before the Spartan *Laconicum* was introduced, and the latter was first adopted in private houses, but by the time of Cicero, public and private baths, had become general and magnificent. In one of Cicero's letters to his brother, he tells him that he has directed the *assa* (hot chamber) to be moved to the opposite corner of the *apodyterium* (undressing room) because the *vaporarium* (flue) was ill-placed. Cicero also speaks of the baths open to the public on the payment of a *quadrans*, the smallest piece of coined money then known. The practice of bathing in cold water after the excessive perspiration of the hot air bath seems, according to Pliny, to have been introduced by Musa, the Physician to Augustus. This Emperor derived so much benefit from it that it became quite the fashion. In the First Book of Celsus you will find a great deal said about the succession of warm, tepid, and cold bathing. Galen advised first hot air, then warm water, then cold water, and afterwards friction and anointing with oil. Celsus prescribes first the *Tepidarium*, then the *Calidarium*, then a quantity of warm, tepid, and cold water in succession, to be poured over the head and body. The body was also well scraped with the *Strigil*, then rubbed dry and anointed. This practice, introduced into Turkey by the Romans of the Lower Empire, is that still universal in the East, and is now being revived here.

The rough diagram which I now show you is copied from a fresco found upon the walls of the *Thermæ* of Titus at Rome; and it is unfortunately the only representation of the Bath in actual operation which has been handed down to us.

The room marked *Balneum* seems to have been a large vaulted chamber with seats around the walls, and a large marble basin in the centre supplied by pipes with running water, in which the bathers, after going through the sweating process, washed themselves. This chamber was called *Lavatorium*. The *Tepidarium* was used to prepare the body for the sweating chamber. In the baths uncovered at Pompeii a number of

small recesses or dressing-rooms are attached to the Tepidarium. The Calidarium, or Sudatorium, or Concamerata Sudatio, is the heated chamber in which the freest perspiration is promoted. In one corner of the chamber you see a sort of section of a smaller chamber, marked *Laconicum*, with a



domed top, and dotted lines for chains. This is evidently a mere attempt of the artist to show on a larger scale, one part of the heating apparatus. No such contrivance has been found in any bath, and it corresponds exactly with a description of the *Laconicum* by Vitruvius. He advised that the hot chamber should be circular, in order that the warm air from the Hypocaust might surround it more easily; and that an orifice should be made at the top, which could be left open, or be wholly or partially closed by a bronze shield (*clipeus*) attached to chains by which it might be raised or lowered. Some of the hot chambers which have been discovered exactly correspond with this description.

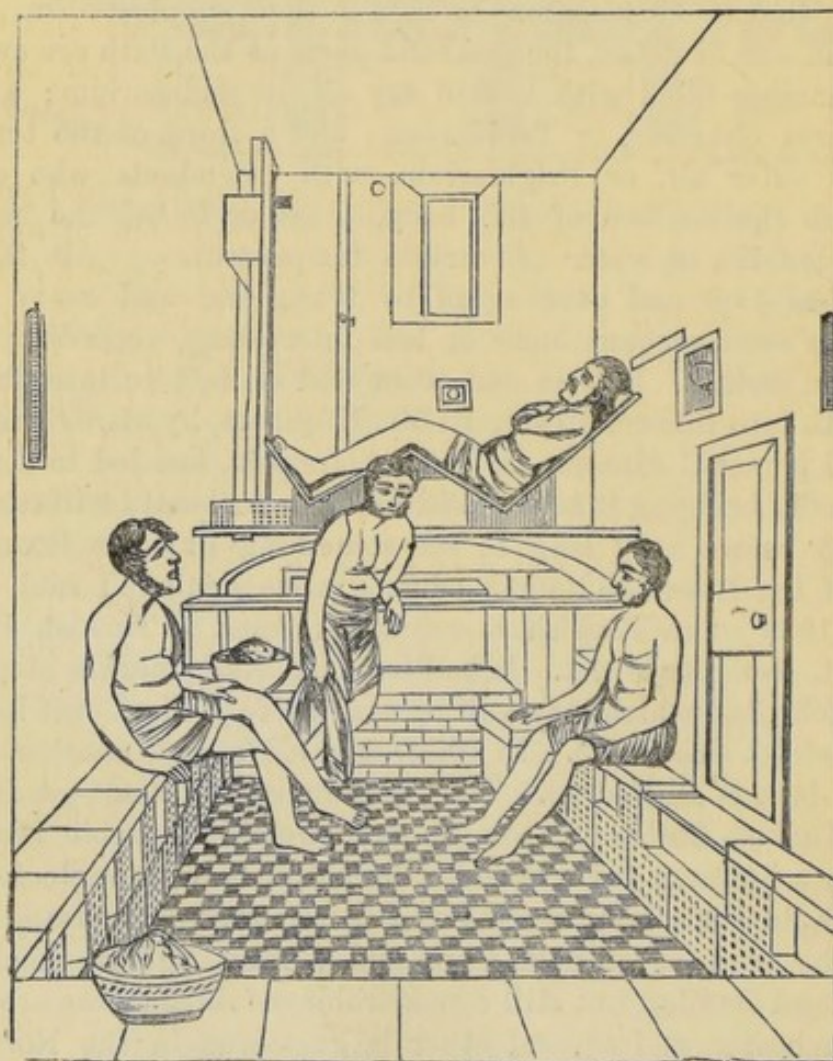
The Furnace and Hypocaust are represented below. You see how the flues are applied to heating small caldrons of water—one for hot water being directly over the furnace, one further removed for tepid water, and one still further for cold water. In this way, by means of pipes, water of different temperatures could be obtained, and the caldron of hot water could be filled from the tepid without much lowering of temperature. You see how the air in the hollow cells which constitute the Hypocaust can pass round the chambers to keep up their temperature.

The *Frigidarium* in some cases was the cooling or dressing-room only; in others it contained a large plunge bath. The *Elæothesum*, or *Unctuarium*, or anointing-room, was the place where the *aliptæ*, or unctores, anointed the bathers before or after the bath. In the British Museum you may see many of the *ampullæ*, or small glass bottles to contain oil for the inunctions, and some containing oil mixed with fine African sand, which were found in the Baths of Titus, and which used to be employed for sprinkling the bodies of the athletes.

I have spent many an hour in Rome among the ruins that still remain of the magnificent edifices known as the Baths of Titus, Diocletian, and Caracalla, and have been struck with wonder at the story they tell of the manners of the Empire. Public and private thermæ, dressing-rooms attached to them, squares for athletic exercises and sports,—corridors for walking, theatres for public lectures, seats for the spectators and philosophers, and libraries for the learned,—the walls covered with fine paintings, precious marbles, and the walks and shrubberies adorned by fountains and sculpture. Such were the Baths or Thermæ of the Roman Empire, and something like this may still be found in the East. At Constantinople and Cairo, the Baths are nearly as fine edifices as the mosques,—some of them magnificent domed buildings which would shame many of our churches. I have had a tolerably extensive experience of them, for I have taken baths not only at Athens, Constantinople, Smyrna, Alexandria, and Cairo, but also far up the Nile within the Tropics, close to the first Cataract, where, amid the mud huts of Assouan, the Roman Thermæ may be seen in their simplest form. However varied in size or detail, the essential parts of the Bath are ever the same. A chamber filled with heated dry air, or Sudatorium; a cooler but still warm chamber, or Tepidarium; and a third of the temperature of the outer air, or Frigidarium, with attendants who cleanse the skin, rub the surface of the body, press or knead the muscles, and apply douches of water of various temperatures. All this has been described over and over again by travellers, and every guide-book contains some account more or less interesting, according to the ability of the writer. But no one attempted of late to introduce the Oriental Bath into this country, until Mr. Urquhart, by his writings, and lectures, and personal example for some years past, has led to a revival which is rapidly bringing it to the position of a national institution, and we are likely before very long to see something like the luxury and splendour of the Imperial Roman edifices arise again. I said of *late*, because in 1679 some Turkish merchants opened a Turkish Bath in Bagnio-court, Newgate-street. It had a domed roof, marble steps, and walls of Dutch tiles, which may still be seen there. The Court has been called Bath-street since 1843. In the *Spectator*, No. 332, another Bagnio in Chancery-lane is alluded to. The Hummums in Covent-garden was formerly a Turkish Bath, and took its name from the Arabic *Hammam*, a Bath. For a hundred years or more the bath has been neglected here, but at length fine buildings, erected at a cost of several thousand pounds each, may be seen in or near Cork and Dublin, and in other parts of Ireland; and smaller, but still considerable establishments are in full force in Manchester, and several other large towns in the North. In London, the first public bath was opened in Bell-street, Edgware-road. Another has lately been opened in Golden-square. There is also a large establishment in Palace-street, Pimlico. All these I have seen, and I have always found them either crowded, or well-filled with bathers. Others are heard of as springing up in all directions to supply an ever

increasing demand, and many gentlemen are erecting them in their own houses. I need not repeat, therefore, that it is high time you should make yourselves masters of the subject.

The first of these baths that I took in England, was at the house of a gentleman, who—next to Mr. Urquhart himself perhaps—has done more to popularise the bath here than any other—I allude to Mr. George Witt, a Fellow of the Royal Society, who has converted a back room in his house in Princes-terrace into a bath, where week after week during the past season, I had the pleasure of passing an hour or two on Saturdays in the Calidarium and Frigidarium, in company with certain noble Lords, distinguished members of the Church, the Senate, and the Bar, Physicians, Engineers, and even Princes of Royal Blood, representatives of the literature or science of the age. I show you here a drawing of Mr. Witt's private bath, which has been published by Mr. Lane, 49, King-street, Westminster, from a drawing by Mr. Edward Hill, to show



THE CALIDARIUM.

how a gentleman's morning-room may be converted into such a bath as may be seen amid the ruins of Rome or Pompeii, or in some of the remains of ancient Roman edifices in this country.

His room was just such a back room as may be seen in many London houses—twelve feet high, ten broad, and twenty in length, with a window looking out upon a lead flat. There was not space for three rooms here, so he had to dispense with a tepidarium, and simply divide his room by a wall, into a calidarium, and frigidarium. A pavement of ornamental tiles bedded in concrete formed the floor, and a furnace, opening on to the lead flat, and heating a flue which runs round the chamber, and afterwards upwards and across it to a chimney, complete the erection. The room is lighted by means of a thick plate of glass, and over the flue are seats, (as you see) and a reclining couch.

The temperature of this room was generally about 135° Fahrenheit. At Golden-square and Pimlico, where they have two heated chambers, the outer one is generally about 120° and the inner 160°. In Turkey I have never seen the inner one above 140°, and the outer one is usually about 110°. The air is also moister than in the English bath, except quite early in the morning. At Mr. Witt's, the frigidarium also serves as a dressing room. At the public baths there are small curtained recesses separated from the cooling room. In either case, after undressing and putting on either a pair of bathing-drawers, or tying a piece of red calico round the loins like a kilt, you enter the hot chamber. At Mr. Witt's we passed at once into a temperature, as I told you, of 135°. To those who do not perspire readily, the sensation of oppression in breathing and heat of the head is sometimes unpleasant for the first few minutes, but as this passes off the warmth becomes delightful,—one forgets the cares and anxieties of life, fatigue disappears, and one listens while calmly reposing, to the conversation of the "Companions of the Bath." After perspiring for half-an-hour, a good wash down with soap, and douches of tepid and cold water prepare for the repose of the cooling room.

At the public baths you first enter the tepidarium. Here the air being slightly moistened, and the temperature at 120°, perspiration is very soon induced, and without any feeling of heat or fulness of head, or oppression of breathing. When perspiration has commenced you pass into the sudatorium, where the air is drier, and the temperature 160°. Remaining here some time, occasionally passing to the tepidarium for a few minutes and back again, very free perspiration is kept up. It stands out on the skin in clear drops, and runs down in dripping streams. This is encouraged by drinking copious draughts of cold water, and then one is ready for the shampooing. In Turkey and Egypt this process is performed in the hot room, as I am told it is in some of the baths in Ireland and the North of England; but in the London baths it is done in the outer room, or tepidarium. The bather reclines while an attendant rubs and kneads limbs and body until all superfluous epidermis and a quantity of sebaceous matter is thoroughly cleansed off, and the circulation in the skin becomes very free; the rosy tint of the capillary plexus glowing through the transparent covering, the white marks traced by the pressure of the fingers being instantly reddened by the returning rush of the arterial

current. I remember Mr. Liston, in his latter days, testing the freedom of his capillary circulation by pressing the end of one or other of his nails, and watching the return of the blood to the capillary plexus beneath the nail. An experienced eye can generally detect a "com-



THE FRIGIDARIUM.

panion" in the bath, by the rosy tint and free circulation in the skin which is very different in the uninitiated. Of course, you must make allowance for the natural difference between fair and dark people; but those who do use the bath habitually are certainly remarkable for clearness and ruddiness of complexion and of the skin generally. Opaque epidermis is removed; choked up sebaceous follicles are cleared; the sweat ducts become quite free; the subcutaneous cellular tissue becomes pliant, admitting that free motion of the skin on the subjacent tissues which is the reverse of what jockeys call "hide-bound;" superfluous fat disappears; the elastic and contractile structures of the skin regain their normal properties, and the ultimate nervous fibrils their normal sensibility.

One of the most common objections raised to the Bath is the fear that

the transition from a heated room to the open air may give cold. But experience proves that this fear is groundless, and a little reflection will show you *why* it is groundless. The skin of the face, which we habitually leave uncovered and exposed to rapid alternations of heat and cold, receives no unpleasant impression from a current of cold air after leaving a hot-room. But the rest of the body is kept covered up from the light and air, and unnaturally heated, and, therefore, loses its normal sensibility and its natural power of supporting changes of temperature without discomfort or injury. The habitual use of the bath tends to restore the normal properties of the skin. When the body is thoroughly heated, it is enabled to resist cold; when perspiration is going on freely, a stream of cold water is only a pleasant mode of producing contraction of the structures of the dermis. Any feeling of chilliness passes off at once on returning for a few minutes to the hot room; and then, as perspiration again commences, the bather may pass to the cooling room with perfect impunity, and with a skin which, with each succeeding trial becomes more and more habituated to alterations of temperature,—in other words, with unnatural susceptibility to cold corrected. Something of the same sort might be said of the mucous membranes of the air-passages, so that persons who have been subject to colds or bronchitis on the slightest exposure to a draught or to cold air, do not suffer at all from such exposure after the use of the bath.

I shall not trouble you with many remarks on the physiological action of the bath. What I have said of the effects is enough to show you that the action of the heart is accelerated, and that the circulation in the skin becomes very active. I need not tell you how very important is the eliminating function of the skin to the health of the body. The excretion of the skin ought nearly to equal in amount that of the kidneys. In twenty-four hours the skin should throw off from the adult body an average of about 33 ounces of water, 80 grains of saline matter, and about 100 grains of highly nitrogenized organic matter with some volatile acids. Now, when the action of the skin is suspended, or sluggish, a large quantity of water, and saline matter, and organic matter, which ought to be drained off from the blood through the sweat-ducts, is retained, and the kidneys are called upon to fulfil not only their own function, but that of the skin also. If they do it, they suffer from the extra work. If they do not, then the blood remains charged with an excess of effete matter, and the whole nutrition of the body suffers. Then, with regard to the scales of epidermis, and the fatty matter secreted by the sebaceous follicles, let me read you a few lines from a book I published six years ago, on "Gout and the Treatment of Stiffened Joints," to show you that I am not insisting upon all this because it is now becoming fashionable to do so.

"It is evident," I wrote, "that by the three outlets afforded by the sudoriferous glands, the sebaceous follicles, and the epidermoid desquamation, the blood is cleared from a very considerable quantity of water and animal matter. The quantity varies with the temperature,

degree of moisture in the atmosphere, food, and activity of other secreting organs, but in a most important degree also with the cleanliness of the skin itself. If the solid matter left by the watery vapour as it passes off be allowed to remain and collect on the skin, it not only impedes the exhalation of more vapour, but also interferes with the desquamation of the epidermis. Again, if the scales resulting from this desquamation be not repeatedly removed, similar impediment to exhalation results. If the secretion of the sebaceous follicles be allowed to collect, the ducts of these follicles become choked up, the secretion collects in the sac of the follicle, and causes a sort of pimple or small boil. If some parts of the surface of the body be kept perfectly clean, while other parts are left comparatively uncleansed, the skin of the former has extra work to do, and it compensates by increased activity for the forced inaction of other portions. It cannot do this without more or less derangement; and, consequently, we see pimply eruptions, increased vascularity, and irregular scaly desquamation on the exposed parts of the skin, which are simply the result of over-work, and which disappear when other parts of the skin are made to resume their functions."

We may regard, then, this purification of the blood by the elimination of the watery, saline, organic, and fatty excretions of the sudoriferous and sebaceous glands of the skin, as one of the most important of the physiological actions of the bath. The increase of the absorbing function of the skin is probably of considerably less importance, although it is certain that oxygen and other gases are absorbed by the skin, and we know that it absorbs water. This leads me to notice again the great difference between the vapour or warm water and the hot dry air bath. In the one case water is absorbed by the skin. We know perfectly well that thirst is thus allayed by immersing the body in either fresh or salt water. In the other case, instead of water from without being absorbed, water from within is poured out in great abundance. Again, evaporation from the skin exercises a regulating influence on the temperature of the body. Suppose one person to be immersed in vapour at 120° and another in a chamber of dry air at the same temperature. The general circulation is quickened in both. The blood vessels of the skin in general, and those of the sweat-glands in particular, receive more blood. More perspiratory fluid is secreted in both. But here the resemblance ends. In the dry air the exhalation rapidly passes off by evaporation, and the body is cooled; but in the vapour bath there can be no evaporation, and the regulating influence upon temperature is lost. Thus, *provided perspiration is established*, a person feels much cooler in a dry air bath at 120° than in a water or vapour bath at the same temperature. People are apt to make a mistake here if they judge by their sensations on first going into the bath. The moist air at first appears more pleasant. Moistening the skin brings on perspiration more quickly. Until perspiration commences, the dry air may be oppressive; but respiration once established, evaporation commences, and the verdict is always in favour of the dry air. Hence the propriety of

introducing a little vapour into the tepidarium. I say little about what is termed "the respiratory function of the skin," because I have never seen any very definite account of the relative share of the lungs and the skin in the oxygenation of the blood. But it is very clear that by increasing the cutaneous capillary circulation, exposing the whole body to the air, and removing all superfluous layers of epidermis, we must favour most materially any respiratory power of the skin. In cases where the lungs or the bronchial mucous membrane are diseased, and the heat and nutrition of the body are suffering from defective arterialisation of the blood, the skin may thus become a compensating organ for the faulty lungs. Perhaps this, together with the soothing effect of the moist air of the tepidarium upon the air passages, may explain some of the good effects witnessed in consumptive cases by the use of the bath. A very excellent paper was read at the Harveian Society, by Dr. Toulmin, of St. Leonards, on this subject (see *Medical Times and Gazette*, April 14, 1860); and I was lately informed by a gentleman recently returned from Australia, that a relative of his, undoubtedly in an advanced stage of consumption, had recovered to a most extraordinary degree under the use of the bath, and a life in the open air.

But before I say more of the bath as a therapeutic agent, let me say something as to its importance in

PHYSICAL EDUCATION OR TRAINING.

Some enthusiastic people talk as if the bath were to supersede the necessity for exercise, and some time ago we were gravely told that race-horses sweated in the bath need not take their gallops. When Thormanby won the Derby we were assured that his only sweats were in the bath. This was repeated so constantly that I took the trouble to inquire into the matter, and I found, as I expected, that he had taken the usual gallops, and that his only experience of the bath was once when he had a cold. It did him a great deal of good, and I am told that it is coming into use among trainers, but certainly not to supersede exercise. Do not then bring a useful institution into ridicule by over-praise, or expecting too much from it; give their due importance to pure air, exercise, wholesome diet, and temperance in physical education, and also look to the purifying influence of the bath in this age of physical Puritanism. The working-classes are already finding out the cleansing powers of hot air; and in some of the northern towns, baths have been erected by co-operative societies of working-men.

Before I conclude I must briefly allude to the

BATH IN THE TREATMENT OF DISEASE;

and I shall say nothing of what I have *read* or *heard*, but confine myself strictly to what I have *seen* among patients whom I have recommended to take the bath.

I have advised three of my gout patients to take a course of these baths. If you will look at the book I before alluded to, you may see that at pages 209 to 212 I have insisted on the utility of the vapour bath as a means of depuration by increasing cutaneous exhalation. The hot air bath answers this purpose far more effectually than the vapour bath. One of the cases I alluded to, a nobleman who had formerly been in the habit of taking the lamp bath, has quite given it up, and has derived so much benefit from the air bath that he is erecting one at his country seat. In a second case, it has also been useful in prolonging the interval between the attacks. In a third, the patient, although he perspires freely, continues to prefer the vapour bath; but I cannot help thinking that this is because the bath he went to is small and imperfectly ventilated. I have also watched the effects in two ladies, members of gouty families, who suffer from defective circulation in the skin, deranged action of the kidneys, and many of those curious nervous symptoms which in the female are the manifestation of an abnormal amount of uric acid in the blood, just as the joint symptoms are characteristic of the same condition in the male. Both these patients have derived great advantage from the bath.

In three cases of chronic rheumatic arthritis, two affecting the knee-joint only, and one the knee, ankle, and other joints, great benefit has been derived; the least in the last case, the patient being very pale and feeble, and disposed to faint in the bath.

In two cases of sciatica, the one rheumatic, and the other the result of an injury, great relief was obtained, which I hope may prove permanent.

In one case of internal tumour surrounded by a quantity of ascetic fluid, the patient was convinced that the fluid was diminished, but other circumstances prevented her from going on with the bath.

In one case of prurigo senilis, the itching completely disappeared after a single bath. Two cases of obstinate chronic eczema are still under treatment. In both the general health has improved, but there has not been any very marked effect on the eruption. One patient, who had had a succession of boils, has had none since he began the baths twice a-week. Another has only taken two baths, and has still an open boil. One gentleman, with specific lichen, who had taken several mercurial vapour baths with some little good effect, has also taken some Turkish baths, but still (he writes) without much effect. This is a very obstinate case—the first I remember to have seen which has resisted the bichloride of mercury lotion. Another gentleman, who had specific psoriasis, got quite well while taking biniodide of mercury and a Turkish bath twice a-week. The biniodide would have cured him alone, but I think the bath hastened the cure very much, and he got well with less of the medicine than he would otherwise have required.

In two cases of obstinate acne—one the acne punctata, the other acne rosacea—the face has been cleared wonderfully. We know very well that acne may be cured easily enough as a general rule, by clearing away,

with a rough towel and hot water, the sebaceous matter which obstructs the ducts, and then using some local application of sulphur or mercury, or better still, a combination of the two; but every now and then you meet with a case which resists everything—which may yield for a time, but always returns sooner or later. Two of these I have sent to the bath, and both are well pleased with the result. Whether the good effect will be permanent, time alone can show.

In one case of cystorrhœa dependent on the presence of ammoniacal secretion, the general health has improved very much. The free action of the skin kept up by the bath has certainly tended to relieve the kidneys, and assisted in the treatment. In another somewhat similar case co-existing with imperfect paraplegia, the patient has derived undoubted benefit from the bath and shampooing. The atrophied lower limbs are becoming decidedly more muscular, and there is unquestionably a steadier gait in walking, and more power of balance.

I have recommended the bath to several friends and patients who, although not suffering from any special disease, have still felt "out of order,"—have been getting too fat, have lost their appetite, become palid and flabby, have suffered more or less from the common result of modern life in large cities, where men exercise the mind too much and the body too little, live in close hot rooms, eat and drink too much, and take a great deal too much medicine,—in a word, have suffered from the "cachexia Londinensis," as it has been called. These are just the cases where the bath is likely to be of the greatest advantage. Those who can take sufficient exercise to keep the sweat-ducts free, who keep the skin perfectly clean and healthy by a daily sponge-bath, and wear porous clothing do not stand in much need of anything more. But when we have to treat the "cachexia Londinensis," depend upon it the bath is the remedy from which the greatest good can be expected.

I must not conclude without one or two cautions as to the mode of using the bath. It should be taken after a light, not a full meal; and about two hours after eating, otherwise digestion may be disturbed and headache follow. Any heat of the head in the bath is corrected by a wet cloth, or wetting the hair with tepid water. Any oppression of breathing or palpitation is at once relieved by a few minutes in the tepidarium or in the cooling-room, or even by lying down in the hot-room. A draught of water soon relieves any feeling of faintness. But these are sensations of the uninitiated, and are never felt by those who habitually use the bath.

As to the effects of the bath upon national character, you will hear the most opposite opinions expressed. One party will tell you that the decline of the Roman Empire dated from the period when, soon after the reign of Nero, the practice of bathing was discontinued, and the physical condition of the people became as much deteriorated as their moral and intellectual character. Others, who will not trouble themselves to study the whole question, will argue that the excessive use of the bath led to the enervation and effeminacy of the Romans, and was a chief cause of

their decline. So with the Turks. One author holds up these people as models of beauty and strength, and attributes their high physical condition to the bath. Another thinks the bath is used in excess and anticipates the decline and fall of the Turkish Empire as a direct consequence. And so people argue of the prolonged fasts of the Mahomedan religion, the abstinence from wine and spirits, the practice of polygamy and infanticide, and the use of tobacco and opium. Some find nothing but good in these things; some nothing but evil. Only the minority endeavour to ascertain what are the real facts of the case,—whether the real condition of the Turk is that of physical deterioration or the reverse, and what share each of the circumstances under which he lives may have on his condition and future prospects. I hope you will not be led to take any such limited view, but will ascertain what are the real effects and uses of the bath; what good it may do if properly used, and what evils its abuse might entail upon us. I have given you my reasons for believing that it may become an important agent in the physical education of our nation, and an important aid to us in treating various forms of disease; and I trust we may see before very long some public edifice arise worthy of the Metropolis of the greatest Empire the world has ever seen.

