

Baths and bathing : a description of all the various kinds of baths, both simple and medicated, administered at the Argyll Baths (established 1817) : 10A, Argyll Place, Regent Street, W. (near Oxford Circus), and 5, New Broad Street, City, E.C. (near the North London Railway station).

Contributors

Argyll Baths (London)
Royal College of Surgeons of England

Publication/Creation

[London] : [Printed by J.E. Adlard], [1885]

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BATHS AND BATHING,

A DESCRIPTION OF ALL THE VARIOUS KINDS OF
BATHS, BOTH SIMPLE AND MEDICATED,

ADMINISTERED AT THE

ARGYLL BATHS

(ESTABLISHED 1817),

10A, ARGYLL PLACE, REGENT STREET, W.
(*Near Oxford Circus*),

AND

5, NEW BROAD STREET, CITY, E.C.
(*Near the North London Railway Station*).

OPEN AT 7 A.M. AND CLOSED AT 9 P.M.

NOTICE.

THE MEDICATED BATHS AT ARGYLL PLACE HAVE BEEN
ENTIRELY REFITTED AND RENOVATED, AND ARE THE
MOST PERFECT IN THE KINGDOM.

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1885

BATHS AND BATHING

A DESCRIPTION OF ALL THE VARIOUS KINDS OF
BATHS BOTH SIMPLE AND COMPOUND

AS PRACTISED AT THE

ARGYLL BATHS

(ESTABLISHED 1817)

107, ARGYLL PLACE, REGENT STREET, W.

(Over the Grand Canal)

AND

12, NEW BROAD STREET, CITY, E.C.

(Over the Great Eastern Railway Station)

OPEN AT 7 A.M. AND CLOSED AT 9 P.M.

NOTICE

THE RECEIPTS SALES AT ARGYLL PLACE HAVE BEEN
ENTIRELY REVISED AND ENLARGED, AND ARE NOW
NOT PRINTED IN THE KITCHEN.

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BATHS AND BATHING.

SECTION I.

THE ARGYLL BATHS.

THESE baths were built in 1817, by a medical man, for the purpose of giving all the more ordinary forms of bath, as well as the various kinds that were specially employed at that time for medical purposes. Since that date great improvements in bathing generally have taken place, and many new forms of medicated baths with unquestionable remedial powers over various ailments, whether slight or grave, have been discovered. At the commencement of this year the Proprietors, with a view of keeping pace with the progress of the times, made a considerable outlay for improvements, and have, under the advice of competent medical and sanitary authorities, entirely refitted most of the bath-rooms with more modern apparatus. Better baths have replaced the now obsolete forms, and the rooms have been enlarged and thoroughly ventilated, thereby removing all those drawbacks which passed muster in bygone years, but which are now no longer up to the present scientific standard. By such improvements, baths of any and every sort can therefore be administered with a perfection which has only been attainable by the extended experience the management has had over a period of nearly seventy years.

The establishment has two great advantages—the centrality of its situation, and the excellence of its resources. Each branch has, apart from all else, an extensive suite of rooms for **Warm Bathing** alone (capable of administering a hundred baths within an hour) and has separate rooms for ladies and children.

The department for **Medicated Bathing** is also, it may be with certainty affirmed, one of the most perfect in the world, and all the more recent improvements which have stood the test of experience both at these establishments and in our public hospitals have been carefully adapted in fitting up the new rooms at Argyll Place. Every detail further has been carried out under competent medical and engineering supervision, so that nothing in the sanitation may be otherwise than perfect.

Throughout the establishment are **Hot Closets** (compartments heated by steam) in which the bather's linen and attire can be aired and heated while he is in the bath, and thereby all risk of damp or chill is avoided. A similar arrangement exists for securing warmth and dryness of the towels and linen used in the establishment, while the fact that the **Laundry** is attached to the premises, is an absolute guarantee of the sanitary purity of the washing, it all being boiled by a special process of steam-boiling, which secures perfect purification and cleanliness.

An experienced **Manager**, who has been the greater part of his life attached to the establishment, supervises all the practical details, and it is his special duty to see that bathers are in every way properly attended to, as well as that particular instructions given by medical men are scrupulously carried out.

The greatest care is taken that the **Attendants**, both male and female, shall be active, well-mannered, and of good character, consequently civility, promptitude, integrity, and attention can be guaranteed. In the event of the contrary, immediate dismissal will follow. Another (and it is hoped appreciable) regulation exists,—that as the attendants receive liberal and fair wages, they have no

claim on the public for gratuities, and are therefore prohibited, under pain of instant dismissal, from receiving any. Bathers are informed that this is a strict rule (fees being looked upon as bribes for exclusive attention and being in this instance wholly uncalled for, as no neglect is sanctioned).

The Baths are open daily from 7 a.m. till 9 p.m.

The management cannot hold themselves responsible for articles, trinkets, &c., inadvertently left in the bath-rooms, but the most scrupulous surveillance is exercised, that everything discovered may be preserved and restored to the owner.

SECTION II.

BATHS AND BATHING.

IF there is one thing that we English pride ourselves upon more than another, it is upon the fact that we do more bathing than any other nation in the world. When we go abroad, the diminutive quart of washing water is a matter of no mild complaint, and plays its part in furnishing another opportunity for the virtuous Englishman to plume himself upon the fact that the soap statistics prove his countrymen use more soap annually per head than any other nation living. Casually looked at, the subject is certainly one in which the indulgence in such pride may be pardonable, but if we examine our present position somewhat more thoroughly we shall see that our self-satisfaction is a little premature. After centuries of a total disregard of cleanliness we have awakened from a slumber as deep as that of Rip Van Winkle, to find everything changed, hot air and vapour baths reintroduced, and sanitarians urging the use of appropriate bathing in every city and village in the realm. But have we yet, as a nation, realised anything like the real uses of the bath as it was known to the great nations of antiquity? Have we really even as yet grasped its significance as a health factor, as it can and should be apart from mere purposes of cleanliness? The best answer to this is found in a slight survey of the prevalence and universality of bathing from the remotest ages, and the lessons to be learnt therefrom.

The Antiquity of the Bath.

The bath under its many varying forms or processes is one of the most ancient institutions of authentic record ; it is primeval, and, what is more a testimony to its value as a sanitary agent, it is universal. "The East is the land of the Bath," said Disraeli, and he was right so far as perfection in details and mere luxury goes, but all nations and all climes have enjoyed its benefits. The Red Indians have it in the West, the Laplanders in the North, and the negroes of Africa in the South. We trace it in the records of the Assyrians, the Medes and the Persians, and all the other great nations of antiquity, although exception has been taken to ancient Egypt because, since the monuments contain no record of it, it is said that vestiges of the bath are wanting ; but this is a hasty conclusion. The Jews possessed it from their earliest days, as may be gathered from the minuteness of the Mosaic decrees enjoining what at first sight seems an almost burdensome cleanliness in the numerous rites regarding purification, and as they had it long before their 400 years' sojourn in Egypt we may reasonably suppose that the Hebrews introduced it amongst the Egyptians. Further testimony is forthcoming in Plato's 'Atlantis,' a romance which he delivers as from the Egyptian monuments and which shows that horses and beasts of burden came in for their share of bathing. The importance bestowed upon the bath amongst the Greeks and Romans needs but slight comment here. The almost fabulous dimensions and grandeur which characterised the baths in the palmy days of ancient Rome, when all the resources of architectural greatness and splendour were lavishly employed in their construction, when distant provinces were rifled of their richest treasures to adorn and beautify these wonderful establishments, where, as in Diocletian's time, 18,000 people could bathe at once, are matters of historical record, as familiar as the literature

and arts which flourished at the same period. But the Romans were not content with baths in their great city alone. For sanitary reasons they made the habitual use of the bath a matter of military discipline and baths were constructed wherever their conquests extended. To them, fifteen centuries ago, our ancestors were indebted for the introduction of hot-air baths to England, and for their maintenance during the four centuries of their occupation. The buildings for this purpose in our country were not so gorgeous or so vast as the Thermæ of Rome, nor in any way comparable in architectural beauty to the Pantheon, which recent reseaches have shown was originally fitted with baths, but it must be remembered that the baths then built were principally for troops. The actual natives of Britain did not care for the bath, and this apathy, coupled with the anarchy following the exodus of the conquerors, was unfavorable to the preservation of any institution introduced or valued by them. Thus the bath came to be despised as a memorial of the Roman occupation, its sanitary virtues were ignored, and with the decay of the buildings probably much of the knowledge of their purpose passed away. For fourteen centuries the hot-air bath was entirely in abeyance in England and the sanitary records of that period are the most degrading to our national pride. The picture drawn by Erasmus of the habits and manners of our forefathers is not an agreeable one, yet no improvement was manifested even in the glorious days of good Queen Bess, when no doubt people thought great progress had been made by the introduction of greater cleanliness at table with the appearance of forks, which Ben Jonson significantly alludes to as brought into custom "as in Italy, to the sparing of the napkins." It is, however, interesting and singular to note that although the bath ceased to exist in England for so many centuries, a rude adaptation of the hot-air bath existed in Ireland, and was much used by the people—whether introduced by the Phœnicians or Romans is unknown. The Irish Tig Allin, or sweating houses, are of very ancient date, and although but semi-barbarous

imitations of the modern hot-air bath, had still the same aim, viz. the relief of the system by stimulating the restorative functions of the skin. That they were effective may be judged from their reputation as a sovereign cure for rheumatism and other aches and pains. It is said that some of these sweating houses still exist in Ireland, but they are rapidly dying out since the introduction of the more recent varieties of baths.

Further from home we find the principle of the hot-air bath known and practised in various ways from very early times by the Russians, Finns, Japanese, Americans, and the aborigines of different countries. Amongst the ancient Germans, on the contrary, it is asserted by Tacitus and other writers that there was very little warm or hot-air bathing, and little by little throughout the other nations of Europe, wherever the Germans dominated, the various medicinal baths (other than the cold river bath) gradually began to be neglected until finally they were very little used, if at all.

The Disuse of the Bath and its Results.

The disuse of the bath became nearly general all over Europe when the luxurious nations of the South decayed. If no one had been the worse for it, we should not be doing much service by drawing attention to this decline of an institution which had played so great a part in the lives of those great nations who have left us the products of a civilisation the highest the world had then seen. But Europe *was* the worse for it and its effects fell not only upon the third and fourth generations, but have extended even to our own time. We have not touched upon the question whether Moses, by his religious ordinances with regard to bathing, had in view the prevention or more speedy cure of leprosy and other skin diseases so prevalent in the East; certain it is, however, that the thorough cleansing of the skin prevented the ravages of

some of the most loathsome diseases dirt had engendered. It prevented their spread to Europe when Greeks and Asiatics first came into contact, and secured immunity from diseases we have since had bequeathed to us from centuries of dirt and darkness.

This is no fiction of the imagination. Infectious diseases such as measles, smallpox, scarlet fever, and others which have been classified as zymotic, were absolutely unknown to the Arabians, the Greeks, and the Romans. Researches prove that they all originated nearly at one and the same period, *i. e.* about the end of the fifth century, and that their origin is clearly coeval with the disuse of the various thermal baths; and say what we will of the luxury which characterised the bathing of the ancients, there is no doubt that in that custom lay the secret of their great security from disease.

And what followed when once the zymotic diseases originated? The accounts given by Hecker of the epidemics of the Middle Ages, by De Foe of the Great Plague of London, or the revelations in Boccaccio's history of the Black Death, all tell their sickening tale of the effects of dirt. The Mosaic laws, the prophet Elijah's command, "Wash and be clean," even the reassertion of the same laws in the New Testament, were forgotten or misconstrued, and the odour of sanctity in the days of the early Christian hermits and saints was anything but fragrant. Just as Eastern nations had made cleanliness a part of their religion, so it really seems that the Western nations made filth a sign of sanctity. St. Jerome "specially commended an Egyptian hermit who only combed his hair on Easter Sunday and never washed his clothes at all, but let them fall to pieces by rotteness." St. Anthony, it is stated, never washed his feet at all. As to one of our own ecclesiastical worthies, we learn that, much to the delight of all the clergy, the body of St. Thomas à Becket was, on the removal of the horsehair shirt at his death, found to be literally "boiling with vermin." History indeed speaks at length of the inevitable consequences of this

neglect of bodily cleanliness, and the lesson has been taken to heart by the sanitarians of our present day. Dr. Parkes in his little manual on the 'Personal Care of Health' gives an instructive sketch of the great scourges of Europe from the Middle Ages down to the present time, showing how some of the most terrible are now no longer known, and he goes at full length into the reasons why they have disappeared, from which we learn how much can be done by mere cleanliness, and how much each individual can do towards the great work of exterminating the infectious diseases which are ever in our midst.

Why the Bath is a Talisman against Disease.

It may be taken, then, as proved that appropriate bathing is one of the greatest safeguards against disease. We have just shown that the principle of thermal and medicinal baths was fully understood by the greater nations of antiquity and that to this they were indebted largely for the excellence of their public health, which ceased as soon as bathing, through various causes, fell into disuse. These are obvious historic facts which all who have at heart their own and the general health would do well to bear in mind. But science at the present day has easily given, through the medium of the microscope, the explanation which was hidden from the ancients.

Baths act on and through the skin, and we will briefly examine the action of the bath upon the skin generally before showing the special value of the various kinds of baths. The structure and functions of the skin have been laid bare to us by the anatomist and physiologist with all the minuteness and accuracy which science aided by the microscope can reveal. From them we learn that the skin is composed of two parts, the cutis or lower skin and the epidermis or visible skin. In the lower skin are a quantity of small glands which communicate with the capillary blood-vessels on the one hand, and with the

outer skin through a duct leading to the pores of the surface on the other. These sudoriferous glands separate certain waste substances from the blood and get rid of them by means of the ducts and pores in the shape of perspiration. One great function of these sweat-glands is to regulate the heat of the body. Another is to get rid of impure matters from the blood in the way described. Besides the sweat-glands there are the sebaceous glands which secrete the oil of the skin and probably likewise certain waste material. The number of pores on the surface of the skin are calculated at about three millions, and through these come daily about two pints of water and other matters.

These secretions have been analysed and found to consist—

1st. Of a watery vapour secreted by the sweat-glands which in the ordinary way passes off as “insensible” perspiration and only becomes visible when increased by exercise, the hot-air bath, or certain diseases, and then it becomes condensed on the surface and is recognised as perspiration, or, as it is properly termed, “sensible” perspiration.

2nd. Carbonic acid formed by the oxidation of organic matters in the body.

3rd. Uric and lactic acids, which in some diseases, notably gout and rheumatism, are poured out in great abundance.

4th. Various saline matters which are derived from the excess of salts contained in the serum of the blood.

5th. The sebaceous or fatty substance which lubricates the skin; and lastly, certain odoriferous particles continually escaping from the surface, which are peculiar to persons in health, or varied, form a pathognomonic symptom in some diseases. The saline and metallic substances inhaled by the lungs, such as soda by glass-blowers, lead by house-painters, or mercury by mirror-silverers, and afterwards eliminated in small quantities by the skin, are also worthy of note inasmuch as they prove that excretion

by the skin is one of nature's methods for getting rid of poisonous matters from the system.

The practical outcome of this knowledge of the structure of the skin is the recognition of the necessity for keeping it clean. This is admirably explained by the late Dr. Lankester in his small popular manual of physiology. He says, "The perspiriferous ducts and the sebaceous follicles may both be so blocked up or covered with dirt as to prevent them from carrying on their functions. When this is the case either the skin itself becomes diseased and a variety of eruptions take place on its surface, or the blood is not properly relieved of its used-up products and internal disease takes place. There is a close relation between the functions of the skin, the lungs, and the kidneys. They all of them carry off waste deleterious matter and water from the blood, and when the function of one of the three in this respect is interfered with, the other is called upon to perform its duties. When the function of perspiration is interfered with, the lungs and kidneys are called upon to perform heavier work, and this may lead to disease."

Fortunately the physiological importance of healthy skin action is too well understood nowadays to be ignored. Few followers are to be found to support a theory worthy of Diogenes himself which was not long since promulgated by the author of 'The Original,' who, disputing about the necessity for washing the skin at all, asserted that the membranes possessed a self-cleansing power, and would, if left quite alone, throw out all impurities by means of what physiologists term the *vis-à-tergo*. In a primitive animal state of society the theory might hold good, but not in our present when the dust and fluff off our clothes are continually choking the delicate orifices of the sweat-ducts.

Three methods were in use amongst the ancients for cleansing the skin and they remain substantially the same even now. *Friction* was a detergent described by Hippocrates as being greatly in vogue amongst his con-

temporaries. This operated superficially and was used gently and moderately for the purpose of nourishing the emaciated, strongly and perseveringly for reducing obesity. *Vapour baths* which (if the head is included) supply nearly as much water by pulmonary absorption as is exhaled from the skin, were used then as now for moistening a dry constitution and at the same time supplying fluids to the body which it lost by the action of the bath. *Thermal, including warm and hot-air baths*, operating on the body, 1st, by promoting all the secretions by the quickening of the circulation; 2nd, by increasing the sudorous and sebaceous excretions through the quickened action of the capillary vessels in the skin, were considered pre-eminent for purifying the blood from excrementitious matters, for the preservation of health and the prevention of disease. Hence bathing in its various forms may always be relied upon to restore the functions of the skin, and it is as a restorative in this respect, that it prevents or cures disease.

A check to the functions of the skin from whatever cause, cold or dirt, is invariably the direct precursor of every febrile or inflammatory disease. The resulting accumulations in the ducts of both sudoriferous and sebaceous glands cause impurities in the blood which in their turn cause fever destined to run a definite course. Fevers produced by specific contagion, such as smallpox or measles, do not come under this head, although it has been proved that even they may be greatly modified, especially by the hot-air baths. This is no fiction again, but fact, for by the perspiration induced in the hot-air bath either previous to or during the rigors which usher in these fevers, the "fomes morbi" has more than once been expelled and the dangerous progress of the disease arrested. Emetics we know are frequently given, and with success, to prevent the progress of contagious disorders, but even their beneficial action is said to be due quite as much to the perspiration they occasion as to the vomiting produced. And while, on the one hand, baths,

of the various kinds just referred to, act powerfully as withdrawing from the body by the surface of the skin many effete materials which would otherwise remain in the circulation, it is equally well proved on the other hand that many medicinal materials may be taken up and absorbed by the skin and so made to act on the body generally. It is well known that there are many remedies and medicines which if prepared in a proper absorptive form, and brought into contact with an extended surface of skin, can readily and in a short time produce their specific healing actions on the entire system. It is this fact that is the explanation of the service of some of the medicinal baths to be presently mentioned.

Why Bathing is more than ever necessary to-day.

We have shown that it is historical that the zymotic diseases of to-day which play such havoc amongst us, adults and children alike, originated with the disuse of the bath in its really effective forms. The question suggests itself whether we cannot reacquire the immunity the ancients enjoyed in this respect. We have better houses, better drainage, more attention to ventilation and household cleanliness than our forefathers had, but we still, *i.e.* the majority of us, neglect the one great factor in personal health,—thorough cleansing not only of the body surface, but of the millions of tubes of sweat-ducts themselves.

We are living in a day when sedentary occupations or over-indulgences in artificial habits of life indispose us for active physical exertion; when, as one writer truly said, “a morbid exercise of the intellectual faculties, a blind neglect of physical exercise, rapid locomotion which disturbs the brain tissue, and an inextricable web of scientific yet conflicting theories have all as so many blind guides led us away from the certain instincts which are the common heritage of a natural and self-grown humanity.”

Happily now we are on the right track towards realising that perfect immunity from disease of which more than one pioneer in the ranks of sanitation has dreamed. But the dream cannot be fulfilled by the efforts of sanitarians unaided. We must all contribute our quota, and there is nothing in which we can do it so effectually as in the personal and strictly individual effort which lies within reach of all,—bathing constantly and thoroughly, either under medical guidance when necessary, or according to what science teaches us is right when in full health and vigour.

Why Bathing is more than ever necessary

to-day.

We have shown that it is historical that the epidemic diseases of to-day which have never amongst us before and which alike originated with the close of the last and the really effective means. The question remains that whether we cannot respect the immunity the ancient enjoyed in this respect. We have before us, but history, some attention to ventilation and house-hold cleanliness than our forefathers had, but we still find the majority of us, neither the one nor the other in practical terms,—through cleanliness not only of the body surface but of the millions of miles of secret ducts, the interior of the living in a day when sanitary appliances are overabundant in artificial lakes of the industrial water active physical exertion, which, as one writer truly said, "the whole essence of the intellectual faculties, a blind neglect of physical exercise, rapid locomotion which the modern habit of life, and an insupportable social condition and civilization have all now many blind guides led us away from the certain instincts which are the entire heritage of a natural and self-grown humanity."

SECTION III.

THE VARIOUS KINDS OF BATHS.

HAVING conclusively proved that bathing is necessary to health, and having shown that this fact, which seems nowadays so palpable, has really only been accepted in its entirety within quite a comparatively recent period, we will proceed to describe the different baths that are at present accepted by sanitary and medical authorities as most useful to establish a perfect condition of health, or most efficacious to combat various states of ill-health.

Baths have been *classified* in many ways, but the broadest practical division is that into simple or non-medicated baths on the one hand, and medicated on the other. The term medicated is used in contradistinction to medical, and is intended to imply the addition of some actual drug to the bath. Thus the ordinary hot-air or Turkish bath may be termed a medical bath, seeing that it is constantly used for medical purposes; so also is the electric bath, but neither of these is medicated in the sense that a sulphur or an alkaline or an acid bath is.

At the Argyll Baths this distinction into simple and medicated baths is used to guide the distribution of the establishment, a separate department being devoted to each. (There is also of course a separate department for ladies.)

Each of these two classes of baths, simple and medicated, fall into three divisions, namely: 1. Liquid; 2. Vapour; and 3. Air. It will be, then, in this order that they will be considered. It may be mentioned that the electric

bath lies between the two great classes of baths, forming as it were a connecting link, and the reason of this will be seen later on.

Simple Non-medicated Baths

depend in the main for their properties on the effect their *temperature* has upon the body, and on the varying duration of the time during which the body is exposed to them, as well also as on the combinations to which heat and cold can be put, such as by sudden changes of temperature, gradual alterations of temperature, and the like.

These simple baths are divided into : 1. Simple liquid ; 2. Simple vapour ; and 3. Simple air with their combinations (such a bath, for example, as the Turkish bath being a combination of several bath processes).

Simple Liquid Baths

are constituted by water at different degrees of temperature and in different conditions of movement and comprise cold bath, tepid bath, warm bath, shower bath, douche bath, and needle bath.

The Cold Bath

is taken at a temperature below 70° F. It is the commonest kind of bath used, and rightly employed is a most powerful tonic and reinvigorator. Its action depends on the fact that it strongly increases all the vital processes of the body, and causes more rapid disintegration of effete tissues, and reconstruction by new and better material. Dr. Ringer in his admirable 'Hand-book of Therapeutics' says, "The most vigorous health is

best maintained by a rapid construction and destruction of tissue within certain bounds, provided these two processes are fairly balanced," and it is precisely this that the cold bath, rightly administered, effects.

The right administration of a cold bath is not the simple thing that it seems, and to understand it correctly one must follow the exact details of its effects on the body and on the feelings of the bather. The first sensations on entering or coming into full contact with the water are not extremely pleasant, and are pretty well known to nearly everyone. Most people who habitually bathe in the river or the sea take their plunge and get the shock of it over quickly. A shock, however, there is and should be, and it is accompanied by a feeling of depression, by sobbing breath, and by shivering chilliness. The system, however, soon reacts, exhilaration takes the place of depression, the circulation quickens, the body glows, the spirits rise, and a feeling of jollity pervades the mind. It is, however, just when all these pleasant sensations are fully established that the bather should leave the bath, but this is precisely what the unsuperintended bather is most loth and most unlikely to do. If he quits the bath and is rubbed dry, or expends some of his newly-acquired energy in performing this action himself, then the period of exhilaration is prolonged throughout the day and the full tonic and health-giving effects of the cold bath are attained. But if on the contrary he continues to revel in the cold water, and overstays the limit beyond which the exhilarated bodily reaction can withstand the antagonism of the cold, depression rapidly sets in, and this depression becomes as enduring as the exhilaration would have been had he come out at the right moment, and the bath, far from having done good, does actual harm and is useless as a hygienic agent. The acme of the period of exhilaration is, then, the moment to be seized for quitting the bath. This moment comes differently to different people. In robust health the bather recovers almost instantaneously from the shock of first immersion and can

stay a long time in the water without the final depression coming on. Schoolboys will daily potter about several hours in the river without seeming to come to much harm by it. But with the invalid it is quite the reverse. A minute or less may comprise the entire time that is requisite to get the tonic reaction at which the cold bath aims. For so short a time in the bath it may scarcely seem worth while to undress, but it must be remembered that the cold bath, as we are now writing of it, is to be regarded as a remedy, not as a luxury.

The end and aim, then, of the cold bath is to get the tonic reaction, but this depends with the invalid on some other factors besides time, which we will now consider. The temperature of the water, the amount of water brought into contact with the body, and the force with which the water meets the body have all to be considered. A very delicate person cannot stand (or in other words will not react to) very cold water; a tepid temperature being ample until use and habit and increasing health permit a lower one being employed. Entire immersion also is sometimes out of the question in the very weak and debilitated, a rapid sponging with water slightly below the tepid temperature followed by a good dry rub down being all-sufficient. The contact produced by bringing the water to the body by means of a sponge is the mildest method of projecting it on to the skin. Stronger bathers can stand stronger means. Entire immersion, or at all events successive entire dips, form the next step in the progression towards the more exciting methods of bringing skin and water together. Next come showers and douches, but these will be considered under their proper heads.

To sum up, then, although the cold bath seems a thing so simply taken in one's own room, it is certainly better in the case of invalids (failing probably correct assistance at home) to have even so simple but so effective a remedy administered to them by the skilled and experienced attendants that an institution like the Argyll Baths is

provided with, and where the various means for bringing the water to bear on the surface of the body have been fully and carefully perfected in certain bathrooms set aside for the purpose.

The Tepid Bath

is given at a temperature between 70° F. and the natural temperature of the surface of the body, viz. 95° F. As the temperature of the tepid bath is below that of the surface of the body, it abstracts heat from the latter, or in other words "chills" the body, but to a much less degree than the cold bath does, and the reaction gained by it is consequently far less. It may be considered a stepping stone towards cold bathing, and is especially applicable to invalids to whose system a cold bath would prove an unbearable shock. Day by day, however, as the increasing strength of the bather permits, the tepid bath can be lowered in temperature so as to produce a more tonic result and to approximate in effect to the cold bath. The bath attendants have been thoroughly trained to administer such a gradual course of bathing in accordance with the direction of members of the medical profession sending their patients to this Institution for such a purpose.

The Warm Bath

is given above the temperature of the surface of the body. It does not therefore extract heat from or chill the body, but on the contrary causes that heat which under ordinary circumstances is constantly flowing and emanating from the surface of the body to be retained; this action of course starts the refrigerative mechanism with which the body is provided and produces increased

flow of blood, dilatation of the arterioles, and activity of the perspiratory process.

The warm bath has been divided into warm bath proper administered up to 104° F.; and hot bath from the latter temperature up to the highest the body can tolerate when in contact with a liquid medium, viz. about 114° F. This, however, is only a division of degree; persons having idiosyncrasies with respect to the temperature they can tolerate, and some standing easily very high temperatures which in others would produce faintness or even syncope.

The Moderately Warm Bath

is more often used for washing than for thermal purposes, that is, it is more resorted to for cleansing the skin than for producing by its temperature any specific impression on the surface and so through the system generally.

With respect to its cleansing attributes they are so well known that little need be said. The temperature of the warm bath is most suited to dissolve and lather soap, consequently the chemically cleansing action of the latter is best brought into play in its duty of removing from the surface of the skin the accumulated secretions of the sweaty and sebaceous matters, which, mixed with epithelial *débris*, clog and choke the mouths of the glands and thus prevent the skin from fulfilling its most important vital function of freeing the general system from waste and poisonous products. It must not be supposed, as is often popularly the case, that because the skin does not look dirty it is necessarily clean. On the contrary a person, after carefully bathing, might cover the surface of the body with clean linen, and, taking care to exclude ordinary external dust and dirt, might at the end of a month remove his clothing, and the skin might have no very *visible* signs of dirt, and yet it would unquestionably be in

the most unhealthy and filthy condition. It is too common an error to suppose that dirt in the broad sense implies the palpable brown or black smudgings of dust, soot, or mud. In the present day nearly everyone keeps clean, in appearance at all events, and it is not the mere removal of self-evident dirt that the warm bath aims at. It not only cleans the skin but it clears it; it opens up the myriads of minute gateways with which the skin is riddled, and leaves them free to discharge those effete materials from the body which, if they accumulate, practically act as poisons to health.

The warm bath, therefore, with the solvent action of soap, clears the skin, and facilitates that proper perspiration which in healthy persons should be continuously going on. This being understood the *rationale* of the beneficial effects produced by the warm bath becomes self-evident.

The warm bath is especially serviceable in hot climates, and *in hot weather* in our own climate, for counteracting and removing the sense of heat and oppressiveness which with many, and especially with plethoric persons, is so overpowering. Its effect is of course due to its clearing power on the skin, and its inducing freedom of perspiration (not necessarily the damp beady condition popularly known as visible perspiration). The perspiration escaping in the form of vapour from the surface of the skin, refrigerates the body (as is well known) to a degree proportionate to the freedom with which it escapes, and so it is that while on the one hand the surface is refrigerated, so on the other hand effete matter whose presence in the system occasions heaviness and malaise is carried off; the result is that coolness and a sense of lightness are attained during the dog-days by a daily warm bath.

For *dryness of skin*, a common condition due to tardy perspiration, the warm bath is for a similar reason recommended, a proper course of them restoring the natural condition and producing suppleness with the sense of comfort that accompanies it.

For all *diseases or affections of the kidneys* in which it

is advisable to relieve those organs as much as possible from their excretive duties, warm baths, on account of their sudorific action, are (under proper professional supervision) most valuable remedies. For, as has been hitherto pointed out, the skin and the kidneys are the two principal ways through which fluid effete matter is eliminated from the body; when, therefore, the kidneys, through disease or any other cause are prevented from performing their share of these duties, the skin has to be compelled to act as far as possible for them, and to oblige it to thus act vicariously a course of warm baths is one of the most potent known agents.

Warm baths are likewise strongly recommended for *rheumatic persons*, a careful course being given for that purpose, usually, however, in those cases in which the hot-air bath, or that combination of bath processes known as the Turkish bath, is considered inadvisable for some reason or other.

In the early stages of *catarrh* or *common cold* a hot bath will often cut the attack short. This is a matter of constant personal experience, and many a bad cold which perhaps has led to some graver consequence might have been cut short by this simple remedy. The explanation of the action of the bath is simple when one examines the actual meaning of a cold. A chill to the surface of the body having been either knowingly or unwittingly taken and neglected, the skin ceases to perspire with proper freedom, and the blood that supplies the skin is forced away by the contraction of the arteries which should supply the skin. As a consequence of this the blood, compelled to leave the skin, finds room in the internal organs, which consequently become engorged, and tend therefore to inflame. The fluids also which should be discharged by the skin cannot, since the pores are closed and contracted by the chill, get away. The mucous membrane or lining skin of the nose, lungs, and intestines, make an effort to do the work of discharging the superfluous fluid, and discharging it in an unnatural way, what is known as *catarrh*

ensues, or, in other words, a flow of fluid from those parts accompanied by local inflammation. Thus, either a cold in the head, bronchitis, or diarrhoea ensue. But if when the skin is first chilled, a hot bath be taken, the arteries of the skin dilate, refill with blood, and perspiration resumes its natural state, and engorgement and catarrh of internal parts is thus prevented.

A course of warm baths is of great service in many of the *skin diseases*, and especially, as Dr. Ringer observes, "in the acute stages of psoriasis and eczema." Generally the addition of some emollient to the water adds to their efficacy; this, however, will be considered later on.

Warm baths have been also stated by Dr. Tilt to be extremely beneficial at the *menopause* on account of their diaphoretic properties.

The length of time a bather can with wisdom stay in a warm bath varies according to his strength and constitution. If the bath is being taken daily six or seven minutes is about a sufficient time. If only used once or twice a week ten minutes or so is permissible. If a single bath is being used for a specific purpose where its fullest effects are desired (as, for example, in the early stage of a cold) then a longer stay in the water is advisable. The warm bath can be taken at any time of day, although it is unwise to indulge in it too soon after a meal. It is a common and popular fallacy to imagine that taking a warm bath produces an immediate susceptibility to catching cold. It would be of course risky to venture out into the cold air before allowing the body to cool somewhat, and it would be equally dangerous to stand about in draughts, or to put one's clothes on if they were at all damp. But at the Argyll Baths these points have been carefully considered, and there is a waiting room in which the bathers can with safety regain their natural temperature prior to venturing into the air; while all the bather's linen is dried during the time he is in the bath by being put into one of the hot airing chambers provided for the purpose.

With the previous simple baths, their effect is dependent on the temperature of the water in which the bather is immersed, and the water itself comes into contact with the body without any force or movement worthy of account. When, however, water is projected against the body with various power and in various amount, specific effects are produced. There are several well-accepted methods of bringing water into more or less forcible contact with the body, and the various appliances for administering both in which this is a principal point have been most carefully perfected at the Argyll Baths.

The Shower Bath.

In this bath the water is allowed to drop by its own weight from some height on to the surface of the body. By means of a rose the water is divided in passage into rain of greater or less fineness, and does not therefore strike the body in bulk; further it comes into contact with the skin by forcible impact and the impression produced is much greater than in the case of ordinary quiet immersion. The farther the distance through which the water falls and the larger the rain which composes it, the greater is the effect produced. The shower bath is usually given at a low temperature, and what has been said about the cold bath applies to the cold shower, only that all the effects of the latter are more pronounced and exaggerated. The shower bath, although described as a separate bath process, is rarely given *per se*, but generally in conjunction with some other form of bath; as after a warm bath, a vapour bath, or a hot-air bath. The fact that the body has been previously subjected to a high temperature before being exposed to shock of a cold shower, renders the latter process more tolerable, while it by no means detracts from its tonic and bracing effects. The shower bath will be more fully referred to in this respect later on, when that combination

of bath processes known as the "Turkish bath" is under consideration. The shower baths at the Arygl Place Institution are arranged at different altitudes, and with such "roses" that the falling water can be variously subdivided into greater or lesser rains; and by this arrangement the power of the bath can be regulated to suit any particular bather, while the special directions of medical men who are desirous of getting regulated effects from such baths can be easily carried out.

The Douche Bath.

In this form of bath process, the water is propelled against the body with a considerable force, and one much greater than is gained by the mere falling of the water of a shower bath (although of course the two processes practically can be made to merge one into the other). The water is also thrown in a stream of greater or less magnitude and violence according to the necessities of the case. The result of this is, not only are effects produced by the temperature of the water, but the part on which the water impinges is subjected to a mechanical fluid shampooing which has a peculiar power of its own, and it is to this latter property, quite as much perhaps as to that of the temperature of the water projected that the value of douching is to be ascribed. The water as it impinges on the body kneads and frictionises the part on which it plays, and produces a mechanical effect on the deeper parts, exerting thereby an action accessory to that of the actual temperature of the water, which latter acts, as has been shown, more specially through the nerves of the actual surface of the skin. The douche is more topical and pointed in its application, not being used to large surfaces of the body simultaneously, but to local and circumscribed portions in succession.

As regards the temperature of the douche, the cold one

is generally employed, and it produces on the part at which it plays a sharp and powerful depression, followed in about half a minute by a correspondingly powerful reaction. As the douche stream is made to wander over the part of the body under treatment, reaction through the whole is rapidly gained. Supposing, as may not infrequently be the case, that reaction does not follow with facility then alternate or following streams of hot and cold water can be brought into play, a species of topical Turkish bath being thereby gained. In a course of douches it may at first be necessary to coax the parts into reaction by this alternation of temperatures, but it is not long, as a rule, before the cold douche, with its more potent influence, is able to be solely used, if such is desirable. The appliances for giving douche baths as employed at the Argyll Baths are very various. Gradations of the power of projection, of the size of the jet projected, and of the temperature of the water, require different arrangements. Recently the employment of two jets side by side simultaneously, one warm and the other cold, has been found a very useful mode of administration. Another variation in the apparatus for giving the douche baths depends on the direction in which the water is projected, whether vertically upwards, or vertically downwards, or in a horizontal direction, and this has given rise to the distinctions of *ascending*, *descending*, and *spinal* douches. These, however, are only distinctions of detail; still they necessitate differences of administrative apparatus, which have been carefully gone into at this Institution.

The douche bath is used either to produce a general effect on the system, or else to a certain part only of the body for the sake of its local effects.

When used for its general constitutional effects it is applied usually over the position of the nervous centres, that is to the head, and along the spine. The potency of its application to the head and thereby to the entire bodily system, is conclusively proved by its service in sunstroke, coma resulting from certain poisons, delirium, and other

maladies. These are, however, not uses to which, on account of their comparative rarity, it is frequently put.

The best marked and most serviceable use of the douche for general constitutional benefit is when applied as the *spinal douche*.

Dr. Chapman long since proved how completely the general system can be affected by applications of different temperatures over the spinal cord, and this fact gives the explanation of the beneficial tonic effects that are gained by the cold spinal douche. As with the cold shower bath the cold douche is generally given after a warm bath, and the temperature of the douche water is of course proportionate to that of the warm bath that has preceded it, on just the same lines as with the cold shower; it being desirable to gain exactly the right effect, and neither to let the douche be too cold, lest reaction is not perfect nor prompt, nor to let it be too warm, lest reaction fails to be gained in full effect. In all these points the attendants at the Argyll Baths are fully trained, and the instructions of medical men can be accurately followed. The spinal cold douche is invaluable in certain cases of anæmia, hysteria, hysteric hyperæsthesia and anæsthesia, and other allied conditions, as well as for general atonicity, acting on many people in the latter respect more pleasantly and more efficiently than the shower does.

Locally applied douches form perhaps the most valuable and powerful remedies these baths afford. They are used with marked benefit to joints that have become stiffened through strain, gout, rheumatism or other causes, especially when the bath is accompanied by a certain amount of manual shampooing, which the attendant is capable of giving.

Douches are also locally applied to relieve congestion of the liver and other internal organs, and it is for the latter purpose that the ascending douches are employed, the water of a prescribed temperature being gently projected into internal cavities.

Douche baths are especially those in which trained

attendants are most requisite, and it is infinitely better to have them given in a course at an Institution like the Argyll Baths at which every appliance and skill for their application will be found. Dr. Macpherson has insisted on this point when he says in his well-known article on the subject, "Douching might be used extensively in private houses; but as assistance is always required by the patient, public baths have advantages for their application."

The Needle Bath.

This bath requires separate notice because just at the present time, owing to the beneficial effects that have been found to accrue from its use, it is a very popular bath process. It is given as follows:

After the bather has taken a warm bath, and the skin has been thoroughly cleansed and shampooed, he sits on a seat and has placed round him what might be described as a jacket of metal piping, which envelops him at the distance of a few inches from the skin. In the piping are multitudinous small holes, through which minute jets of water play upon the surface of the body. These jets are practically minute douches, although they have not the impulsive violence of the ordinary douche jet. The water is thus directed over a large surface of the skin and is propelled directly on to it, differing from the shower in the fact that while with the douche the skin is struck at right angles all over, with the shower much of the water simply trickles down over the surface of the body, and only the portions immediately under the shower rose are really struck. The needle bath differs, on the other hand, from the douche in the area that is soused, the douche playing on a limited portion, but the needle bath on an extended portion of the body.

Its effects are similar to those of the douche, modified,

however, by the points just noted, namely, that its range is more extensive while its force is more lenient.

Vapour and Hot-air Baths.

The next baths to be considered are the vapour and the hot-air baths. In them the body is brought in contact with a medium of much higher temperature than that at which water can be borne by the skin. The average extremes at which heat can be tolerated by ordinary persons in this country in these three different media is, for water 110° F., for vapour 120° F., and for air 140° F. The result of exposure to the higher temperatures is that the cooling machinery with which the human body is provided is very strongly set going. As was previously mentioned, the body is kept cool by perspiring, and the greater the amount of heat to which it is exposed the greater, *cæteris paribus*, is the amount of perspiration thrown off. And, as was also mentioned, the perspiration bears from the body a number of the harmful and poisonous waste products that accumulate in the body, and consequently the greater the amount of perspiration the greater is the purifying effect on the body. These baths, then, are *depurating*.

It was likewise previously pointed out that a certain rapid waste and renewal of tissue was necessary to vigorous health. In many people lack of exercise and other causes prevent the naturally balanced destruction and reparation, but exposure to a high temperature will in their case rapidly cause it. To such people these baths are therefore extremely *invigorating* and *tonic*.

Exposure to hot air or vapour is rarely employed *per se*, but constitutes only a part of a combination of bath processes, which bear as a whole the name of vapour bath or hot-air bath. In both these baths the general proceedings are much the same, and their effects are broadly identical, differing only in degree, and they will be considered together under one head.

Vapour Baths.

In Russia, the vapour bath is looked upon as a *sine quâ non* to existence itself. From St. Petersburg to the utmost limits of Siberia the poorest peasant has his vapour bath. To the public ones on the scale upon which they are to be found in all the large cities of the empire, men and women, boys and girls, flock as to some favourite show. Hardly anyone is found to neglect the vapour bath, and this has been considered by some medical authorities to account for the singular immunity from rheumatism and kindred diseases which the Russians as a nation enjoy. In England it might never perhaps become so national an institution, particularly in its Russian form, but the modification of it which is familiar may well be destined to occupy a greater position as a health factor and curer of diseases than at present. The idea of submitting to intense heat, followed by a sudden transition to cold, is just one of those before which a barrier of prejudice still exists. Far from curing a cold or curing stiff joints, a vapour bath would by some be imagined to cause them. The actual facts, however, recounted by Dr. Traill, an authority who refused to believe the glowing accounts of Russians about their national institution until he had tested the effects of vapour bathing by his own experience were these:—His experiment was made with a violent feverish cold and his pulse at 100. He describes how after undressing he entered a room full of hot steam, which was so oppressive at first as to be painful to lips, nostrils, and head; how clouds of fresh steam were continually produced by cold water dashed on small earthen jars above a tremendous furnace, how perforations in the ceiling provided for copious shower baths at will, and a reservoir of cold water for a plunge was also at hand. The bath was, according to custom, taken sitting or lying on benches raised tier upon

tier. After a time, when the first oppressive sensations had subsided, Dr. Traill recounts how he ascended to the second tier and sat down on a bench cooled by cold water, the perspiration streaming copiously from him. Ascension to the third tier he found very oppressive on account of the concentrated heat so high up, which, if inhaled with the mouth wide open, caused an oppressive feeling at the chest. As this became too insupportable for Dr. Traill to sit upright, he descended to the second tier, where a bath operator, grasping a bundle of birch twigs in his hand, set to work to whip him as he lay extended on the bench from head to heel. The leaves, he remarks, were left on the twigs, so that it in no way resembles the effect of the instrument used in English schools, and when the whipping is dexterously performed with a sort of brushing motion from the shoulders downwards, the sensations are most agreeable. After the whipping the operator anointed the body with a mild liquid soap, and Dr. Traill reascended to the upper tier, where he remained for some time. Descending thence to the middle of the floor, a powerful affusion of cold water from the shower bath in the ceiling removed every vestige of soap and produced a highly exhilarating and refreshing effect. Some bathers, he informs us, will then recommence operations and repeat all the stages, after which they leave the bathing room and are rubbed dry by assistants in a small heated apartment before putting on dressing gowns and slippers and retiring to a saloon to rest for half an hour in the most profuse perspiration, and, as Dr. Traill remarks, "in a state of luxurious languor and mental tranquillity." An hour after taking the bath Dr. Traill was free from fever, the cold had disappeared, and he was able to enjoy a *soirée* later on in the same day.

After his experience, Dr. Traill and others took immense trouble in inquiring into the medical efficacy of the Russian vapour bath, and it was found to be a powerful and valuable remedy in chronic rheumatism, in stiff-

ness of the limbs resulting from gout, and other long-continued inflammations, in some cases of palsy, and in various cutaneous diseases. The case of one invalid is cited by Dr. Traill, who, after a severe attack of rheumatism lasting several months, was so lame that he had to be carried to the bath by two people, but who after five or six times submitting to the bath was able to walk with a stick, and some little while later recovered the power and flexibility of his limbs, a circumstance which proves not only what can be effected by the bath but by perseverance with it.

Such were the experiences recounted by Dr. Traill of the crude form of bath in common use in Russia, and the earlier portion of the bath may seem to us to be rather trying and oppressive. The modern modifications of the vapour bath, however, are free from these unpleasantnesses, because, as will be presently described, the bath can easily be taken without involving the head at all, and without exposing the mouth, eyes, and nose to the somewhat choky atmosphere of the vapour bath.

The vapour bath was introduced into England by the Hon. Basil Cochrane in 1822, and since that time has undergone the modifications that have brought it to its present state of perfection.

Abroad the bath is given not in separate and private rooms, but in common rooms of large size. At the Argyll Baths there are numerous sets of private rooms, each of which contains every appurtenance for administering the bath from beginning to end to a single bather, and the process is as follows.

The bather enters the vapour cabinet and seats himself on a kind of chair, and places his feet in a foot-bath of warm water. If the head is not to be included then flaps are brought down at the level of the neck, and are so arranged that when shut the bather is sitting in a closed cabinet, with his head passing through a large aperture into the outer air. If, on the other hand, the head is not to be excluded then the flaps are not put down, and the

entire cabinet receives the steam. It is to be noted that the distinction between these two methods not only lies in the head of the bather being exposed or the reverse, as the case may be, to the vapour, but as in the one case the vapour is breathed, and as in the other air alone is breathed, the lungs either participate in or else escape the heating influence of the steam, and this is an important difference. For beginners it is certainly more agreeable to have the head unexposed to the vapour. When everything is ready the bather turns the steam on, the handle for doing this being within his immediate reach, as is also a bellpull by which he can summon instantly the attendant should he have sent the latter out of the room. Further, the flaps and doors of the cabinets are so arranged that should the bather feel at all oppressed he can immediately open them himself and quit the cabinet. Hence, it will be seen that the bath is entirely under the bather's control as well as under that of the attendant.

As the steam flows in the cabinet becomes speedily heated, and the rise of temperature can be regulated, as has been said, by the bather himself, so as not to be overdone. Meanwhile, the steam condenses in drops on the skin of the bather, and at the same time perspiration begins to flow from the sudorific pores, and after some minutes runs very copiously down. In order further to increase this perspiratory flow, to which so much of the benefit of the bath is due, a glass of cool water can now be drunk by the bather. When once perspiration is fully established there is no necessity for the bather to remain longer in the vapour cabinet, and the attendant (and the bather also) soon judges of the time at which perspiration is in full swing, more especially if the head is not enclosed in the steam cabinet, as then the drops that fall from the forehead constitute a very good guide. The perspiration will now go on by itself unless checked by cold. If it is desired to terminate the perspiring process immediately the bather steps from the cabinet into the shower bath, and is subjected to a rain of graduated temperature, tepid

at first, but declining towards cold by gradations. Generally, and indeed mostly, it is requisite to prolong perspiration, in which case the bather steps directly from the steam cabinet into a warm bath and is rapidly soaped, lathered, and shampooed by the attendant, who when the skin is thoroughly rubbed allows a warm shower to descend and wash the lather away. The bather is then dabbed dry with a large enveloping bathing sheet, which is discarded for a dry one, and he steps to the couch, where he reposes at full length, packed in blankets; and he immediately breaks again into a copious perspiration which is permitted to continue for half an hour or so. The blankets are then removed and he receives the graduated shower which, beginning tepid, terminates cold. This puts an end to the perspiring process for good, braces the bather up, and makes him feel light, elastic, and rejuvenated.

A luxurious modification of the vapour bath is that known as the **Sultan's bath**, in which the steam of the vapour chamber passes through fragrant and virtuous herbs and becomes thereby beautifully perfumed; while in all the subsequent stages of soaping, shampooing, and showering perfumes are employed. This bath, which is given on an Oriental plan, is probably the most delicious and invigorating bath of any that exists.

As before stated the vapour bath either is general, that is, includes the whole body, head and all, or it excludes the head, or it can be given locally to a limb, as to a single arm or leg, this being sometimes for medical purposes desirable.

Hot-air Bath.

The hot-air (or so-called Turkish bath) was introduced by Mr. Urquhart into English bathing establishments after centuries of disuse. It is called Turkish probably because the Turks are the nation in which it is most generally used; certainly not because they originated it. It is really a survival of a very ancient

Oriental thermal process, the true secret of which has been lost. The Turks through many centuries have persistently used it. So well did they understand the true restorative power of this bath, and the refreshment to be derived from it after severe fatigue, that when they captured Constantinople in the fourteenth century, it is recorded that the day after the taking of the city they rushed in crowds to the hot-air baths to recover themselves from the labours they had undergone. The processes of the baths in use to-day are identical with those in operation in Rome itself 1800 years ago with the exception of the use of the strigil, which has been discarded for a glove of goats' hair. Hot-air and vapour baths are, perhaps, now on a par as regards popularity, but, as a rule, those who have as yet tried neither are sometimes afraid to take them lest they should catch cold. But this is physiologically impossible. The savage Indian rushes out of his sweating bath and plunges, reeking with perspiration, into water of the same temperature as the atmosphere. Many Russians have a roll in the snow after their baths and receive benefit rather than harm from a cold immersion succeeding intense perspiration. The reason for this is simple, and when stated may convince those hesitating as to the prudence of submitting to the operation. When heated by the bathing, or by exercise, the system is fortified with an extra amount of heat to withstand the sudden transition to cold, and it not only sustains but relishes the shock. It is apparent, on the other hand, that if a bather when heated waits until he is cooled down, the very effect of cooling abstracts heat from the system, and renders it less able to withstand the transition. Medical testimony to this effect is not wanting. Sir Spencer Wells, lecturing in 1860 at one of the London medical schools, said of the Turkish bath, "One of the most common objections 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 why it is groundless. The skin of the face which

we habitually leave uncovered and exposed to the 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, and by it unnatural susceptibility to cold becomes corrected."

Three years later the 'Lancet' published a series of papers on the "Treatment of Phthisis by the Turkish Bath," and in them we find the following passage: "One remarkable change of opinion has resulted from the introduction of the Turkish bath. Not five years ago it was generally supposed that to pass while in a state of profuse perspiration into water, the temperature of the air in winter, must be injurious or even highly dangerous The Eastern bath proved that the most profuse perspiration may be suddenly checked not only without risk, but with positive advantage." Another popular idea is that these baths must be debilitating and exhaustive because its action produces such copious perspiration. It is, however, the reverse. The way in which such a notion has arisen is easily understood. To the ordinary mind profuse perspiration is associated with bodily fatigue, because perspiration is naturally produced by bodily exertion, and bodily exertion always causes more or less bodily fatigue. Hence as the Turkish bath produces intense perspiration (the visible and valuable result of its action) it is illogically assumed that such perspiration is similar, both as to cause and effect, to the perspiration produced by physical efforts. The essential difference between the two ways in which the perspiration is excited is here ignored. The perspiration exuded during physical efforts is evidence of the physical power expended, but the perspiration excited by a hot-air bath is the reverse. No physical effort is required to produce perspiration in the

Turkish bath, no muscular energy is expended, and there is therefore no muscular fatigue, nor any exhaustive wear and tear, in fact no waste of "strength." The grateful influence of the bath adds to the pleasurable repose the bather enjoys whilst his system is thoroughly cleansed.

The hot-air bath is given at the Argyll Baths in precisely a similar way to that just described as carried out in the case of the vapour bath. The whole process is performed in one room with the cabinet for the hot air leading from it, and this has been found in the experience of the management to give much greater satisfaction to a large section of the public than the other method, by which larger rooms are used in common by many bathers. At the Argyll Baths the whole process is concisely and compactly performed, and with that perfect privacy which is so highly valued by the great mass of people, in England at all events.

The hot-air cabinet is of the same construction as the vapour cabinet, only that it is built over cylinders, and surrounded by coils, into which steam can pass, this being the heating medium in lieu of the furnace which is sometimes employed. The heating arrangements are such that the steam can be superheated, and when this fact is borne in mind it will be readily appreciated that a temperature much in excess of that required can be gained, while this simple plan of heating the air of the cabinets is most easily and readily governed and regulated.

As in the case of the vapour bath the head can be either within or without the hot-air cabinet, a thing that is not attainable in the common-roomed Turkish baths, and this is a point of great importance for medical and therapeutic purposes. The processes of the bath are the same as those previously described under the heading of Vapour Bath, and the main difference between the two is that the body is subjected without discomfort to a higher temperature in hot air than it is in vapour. Otherwise the bather goes through the same course in both; first the compelled perspiration is started, then the warm cleansing

bath with its lathering and shampooing is given, next there is the repose on the couch while perspiration is coaxed into continuation, and finally the graduated shower terminating with cold which closes the pores of the skin and braces up the entire system.

The therapeutic uses of both vapour and hot-air baths may conveniently be considered together, because broadly speaking the effect exercised by both is similar, and because the method of giving each is identical, the only difference being that the heat to which the body can be exposed is greater with the hot-air bath. On the other hand the oppressiveness is much less with the vapour bath, and many weakly people can comfortably stand this who would find the other too trying.

As has before been indicated they combine the benefits of both the hot and the cold bath. The hot stage clears the body of many impurities through the medium of rapid perspiration, and increases the activity of the skin and the subcutaneous circulation; the lathering and shampooing remove masses of the superficial and defunct epithelium, and expose a younger layer, suppling the skin, and producing on it a sense of smoothness and delicacy; the final cold shower closes the pores, thereby preventing any further excessive perspiration, and braces the system, inducing more rapid oxidation of all the tissues, in the same way as, but more powerfully than was described as effected by the ordinary cold bath.

The bodily infirmities to which these baths are beneficially applicable are very numerous.

The exaggerated tendency that some persons have towards *catching cold*, which frequently proves of the greatest inconvenience to them, and necessitates their using almost babyish caution about exposing themselves to slight changes of temperature is remediable by a course of these baths. The explanation of this is fully given in the quotation previously taken from Sir Spencer Wells's lecture, and is, to put it briefly, that the skin gets educated by the rapid changes of temperature in the bath into ignoring

slighter ones in everyday life, the nerves of the skin being braced into tolerance.

Obesity, especially that arising from an inactive and sedentary mode of life, is especially amenable to a course of these baths and for the obvious reason that they produce all the needful tissue-waste that ordinarily accompanies exercise; and further without the fatigue that exercise involves.

A generally *sluggish habit* of body which often exists without stoutness yields for similar reasons, all the vital processes being accelerated and excited to fuller action.

The *general lethargy* of system which accompanies inactivity of the liver in the case of old Indians and long-standing residents in similar tropical climates yields most satisfactorily to a long-continued but gentle course of these baths. Dr. Ringer particularly notes this and adds a caution "against the too vigorous application of the bath," that is, against exposure to too high a temperature in the hot process, and too low a temperature in the cold process; and this is a caution which may well be pondered over by many habitués of Turkish baths, who get into the habit of thinking that the greater the temperature they can expose themselves to the greater will be the benefit derived.

Gout and *rheumatism* are two diseases for whose results these baths are very often almost a specific; and when one considers the vast number of forms in which gout and rheumatism show themselves, and the innumerable ailments that are directly ascribable to them, one can easily understand what a range of cases occur in which relief can thus be obtained.

Pains in the various joints, of the muscles, and of the different viscera often disappear like magic under a course of these baths; and although in long-standing cases the effect may not be quite so instantaneous and striking, yet to quote again Dr. Ringer's 'Handbook of Therapeutics,' "by diminishing the frequency and severity of the relapses, and by removing the pervading sensation of

invalidism, they afford considerable relief," and he goes on to give the type of cases in which these baths are "superior to other remedies."

Many also of the affections of the nervous system are likewise either benefited or cured by these baths, including the multitudinous neuralgias, as lumbago, sciatica, and other inflammatory affections of nerves.

The skin, as might be expected, is specially benefited in many of its diseased conditions by these baths, and there is scarcely any writer on balneology who does not testify to their efficacy in cutaneous maladies, as eczema, psoriasis, and others. As will be seen later on, under the head of Medicated Baths, the hot air and vapour of these baths may, when used for morbid conditions of the skin, advantageously be impregnated with certain medicines, and the full effect of both bath and medicine thereby obtained.

The mucous membranes are likewise affected by these baths when in conditions of congestion or catarrh, for the reason that was given when dealing with warm baths, and for a similar reason they are also much used in affections of the kidneys, these latter organs being relieved of work by stimulating the skin to increased action. This point has previously been explained.

Finally, this foregoing category of maladies amenable to the hot-air and vapour baths is only a broadly general one; many other morbid conditions are well known to be relieved by their use. This also may be said in conclusion, that in a large range of cases the vapour baths are quite as serviceable, and in many cases more so, than the hot-air ones, and they are of necessity unobtainable in institutions solely dedicated to the so-called Turkish baths; while the hot-air or Turkish bath itself, when taken for a specific purpose and under definite guidance, is certainly given with greater satisfaction to the bather in the private and separate baths which are in use at the Argyll Baths, than under the public "common-room" system.

The Electric Bath.

The bath processes that have been described up to this point have been classed together as simple non-medicated ones. Lying as a connecting link between these and the medicated baths is the electric bath. In a medicated bath the liquid, vapour, or air which constitutes the bath is impregnated with some drug whose object is specific. In the bath now about to be considered the peculiar virtues lie in something quite apart from the water in which it is taken, and yet no drug is used to impregnate that water; it is therefore in this respect that it lies between the distinct kinds of baths.

The particular process which has proved so beneficial (when used as about to be described) is the passage through the body, or some part of it, of an electric current, but the special peculiarity of passing a current through the body in a bath requires an explanation, as it differs most markedly from all other methods of employing electricity for therapeutic purposes, and for the following reasons:

Electricity is now largely clinically employed. The usual plan of using it is this: The battery generates the electricity, which passes along wires to terminal appliances called "rheophores." It is these rheophores that *are brought into contact* with the body of the patient, and between which the current passes, and by these means the course of the current is localised. With the electric bath, however, the rheophores or terminations of the wires are immersed in the bath and are *not brought into contact* with the bather at all. The bather, however, is placed between them, and the water of the bath together with the bather, form a continuous conductor, the result being that the electricity passes through the bather in any required direction, not in a linear route, but in a broadly diffused one. The rheophores, further, are of every size,

from a small brush up to a plate of several square feet, but it is with these latter that the best effects seem to be produced.

To put the point more popularly. The bather sits immersed in a warm bath, at the head and foot of which are two large metal plates, covered with a wooden trellis so that the body of the bather and the plates may not come into contact. When the current passes between the broad surface of the plates, it traverses the body of the bather in a broad stream, and he can feel every part of him subjected to the influence of this current that lies between the two broad plates.

The difference between this and the ordinary clinical method is evident. With the latter contact is made with the body at definite points, and the electricity selects the natural electrical nerve and muscle ways, and passes along these—a thing which for many therapeutic purposes is the most desirable. But with the electric bath there is a broad current flowing, the outline of which can be felt, and any part of the body brought into the current receives the stream of electricity through it. Thus the finger or the arm can be as it were dipped into the stream of electricity; and when the bather is seated in the usual position in which the bath is taken, the whole body is involved in this stream of electricity, and is traversed by it.

Every electric bath-room has in it other rheophores, as brushes, sponges, &c., besides the broad plates just mentioned, which former can be, if medically ordered, used, in the way generally employed, to special nerves and particular groups of muscles; but it is the electric bath when used with the broad plates in this novel method that has proved so efficient. Why this should be so it would seem difficult to say, but the fact must be judged rather by practical results than by theoretical considerations. When some time since the electric bath first came prominently under their notice, the management of the Argyll Baths had one fitted up at each of their establishments, and

advertised the fact. Within a short period several medical men sent their patients for courses of these baths, and a number of bathers came independently. The results obtained were so eminently satisfactory to all parties concerned, and seemed so fully to justify it, that six more electric baths were arranged, and are now in constant use. The form of current employed, it may be mentioned, is the "induced" one. The uses of electric baths are very numerous.

As a *refresher or tonic* to the system it is very valuable, bracing up apparently both the muscular and mental organs. A Cabinet Minister, well known as one of the clearest thinkers and most hardworking men in this country, with the command of a large administrative State department, has told the manager of the Argyll Baths that nothing he has ever tried braces him up and strengthens him for the onerous work he has to perform so well as the electric bathing; and whenever he is below par or is overworked, he has recourse to those at this Institution. The current, when employed for its refreshing effects, is not a very strong one, but it is made to traverse the body between the broad "rheophores," as above described, and the bather really bathes and moves about in a stream of electricity. It is unquestionable that many a man whose constitution is lowered by fagging at work and by worry can be largely benefited by the bath so taken, and it is also equally efficient in many other depressed conditions of the system.

For *paralytic conditions* the uses of electric treatment are too well known to need recording, and while on the one hand the use of the general electric bath is much recommended for such ailments, there are all the means at hand at the baths for confining the current to one side of the body, or to one limb, or to any special part that may be ordered or desired.

For *painful affections* electric bathing is most valuable, and here again the uses of electricity are well known and fully recognised. Dr. Vivian Poore, one of the highest

authorities on electrical therapeutics, says: "The power of electricity to relieve pain is very great. The relief is usually temporary, but in many cases is permanent. Occasionally electricity will give relief when every known remedy has failed." The various neuralgias of the body, and all kinds of rheumatic and gouty pains, frequently yield with astonishing rapidity to electric bathing, and this is not to be wondered at when one considers that not only is the bath an electric agent, but also a thermal one, and in this latter office produces all the effects of the warm bath, so that both agents are at work at one and the same time.

Various *spasmodic affections*, more particularly of the internal organs, are markedly benefited by electric bathing. In conclusion, it may be said that there is a large range of maladies in which electricity is of the greatest service; indeed, to quote again the authority above mentioned, "there is in fact scarcely a disease, from epilepsy to chilblains, in which it has not been alleged that electricity has been of use." Without asserting that electricity is a universal panacea for everything, for such would be absurd, it is certain that in a very large number of ailments, and especially in those above alluded to, electric bathing will be found to be of great use and importance, and is well worth a trial by those who have not yet given it one.

Composite or Medicated Baths.

The next and last series of baths are those in which the medium composing the bath, whether water, vapour, or air, is impregnated with some drug, which thus exhibited produces either a special effect on the skin itself, or else is intended to be absorbed through the skin, and to affect the system at large; this latter mode of bringing the body under the influence of a drug having in certain cases been found by experience to

be far preferable to administration in any other manner. These medicated baths are impregnated with various mineral and other substances, and those to be now described are the usual ones. But it seems not improbable that many other substances might be prescribed in a somewhat similar way with advantage, and any special bath of the kind would be given at the Argyll Baths under doctors' orders.

In describing these baths they will be only briefly treated, an enumeration of them being given, rather than any detailed account of their therapeutic properties and peculiarities. This will be done because they are almost invariably taken under the advice or instructions of medical men, and consequently there is no necessity in these pages to go into their specific medical properties, these being well known to those who recommend them. The same order will be followed in reviewing them as was followed in the previous simple non-medicated baths, viz. first the liquid ones, then the vapour, and finally the hot air.

Liquid Medicated Baths.

At the Argyll Baths there are newly-fitted special rooms set apart for these baths. The baths themselves are of white porcelain, admitting thus of the most scrupulous cleanliness and purity, while the bath-rooms are entirely lined with a white enamel, which is unaffected by any chemical fumes that may arise. The drugs employed are guaranteed of chemical purity, and are most carefully measured out for each bath, so that exact effects may be obtained. In short everything that can possibly render these baths perfect has been done.

The Sea-Water Bath.

This bath is given either with the natural sea water, or more conveniently with Tidman's sea salt; for although there is no difficulty now in getting the actual native sea water, still it requires to be kept constantly in motion in the tanks by special agitators, otherwise it becomes after a few hours flat and unpleasant; so that the solution made with sea salt and water fresh from the main is really more convenient and quite as efficient as natural sea water.

Sea-water baths are taken usually cold or tepid, but sometimes hot. What has before been said about these latter baths applies equally when the water of which they are composed is impregnated with sea salt, but with this addition that the stimulation of the skin is much greater in consequence of the action of the saline matters. The difference between fresh and salt water in this respect is too well known to need further comment; nearly everyone has experienced the smarting produced by contact of sea water with a scratch or cut, and knows how much greater this is than with fresh water; and what here applies to raw surfaces holds equally good with sound ones, only the person is less sensible of it.

The uses of sea-water baths are from this stimulating power very great, especially with invalids, because while the bracing effect of an ordinary cold bath can be easily tolerated by the strong, they are not so easily stood by the weak, and with this latter class baths of a more tepid temperature, but of salt water, will produce similar effects to the cold fresh-water bath, or, to put it in other words, the stimulating effects of salt can be used instead of the stimulating effects of cold within certain bounds.

It is for this reason that tepid salt baths are so serviceable during convalescence from acute diseases, in cases of chronic weakness and debility and for those of tender or

advanced years. They are also specially of service for scrofulous or strumous subjects, for chronic rheumatism, and for many other atonic conditions of the system.

It may be mentioned in passing that a bath known as the *sea-weed or fucus* bath is sometimes recommended; this is, however, only really available in its full advantages at the seaside, and is rarely called for at the Argyll Baths, although it can be administered if needed.

Liquid Sulphur Baths.

Sulphur is administered to the surface of the body in two forms of liquid baths, either by a solution of sulphide of potassium or by a solution of sulphurous acid. The former is by far more commonly used.

Harrogate or Sulphide of Potassium Bath.

The Sulphide of Potassium Bath is prepared by pounding and dissolving about six ounces of the sulphide in hot water and pouring the solution into a warm bath and well mixing. The result is a milky fluid with the well-known smell of sulphuretted hydrogen, the milkiness being due to finely precipitated particles of sulphur. As this mixture does not affect the lathering of soap, the bather can if desired be lathered while in the bath, and subsequently lie immersed in it for some ten minutes or so. On leaving the bath the body is simply dabbed dry, so as to remove as little as possible of the sulphur solution.

The sulphur bath thus given exercises, apart from all else, a very stimulating effect on the skin, making it more active and healthy, and on this account is often taken by ladies on account of its beautifying action on the complexion. The medical properties of this bath are extremely well known, it being of great service in many affections of the skin which it is needless to enumerate

here. It is also largely used for scabies, although, perhaps, the sulphur vapour bath has as great a reputation for the cure of this ailment, and the subject will be more fully referred to under that head.

The Sulphurous Acid Bath

is made by adding several fluid ounces of the ordinary pharmacopœia solution to the water of a warm bath. Its actions are similar to the sulphur vapour bath, only it has this advantage, that a determinate strength of the bath is always attainable, and it can be given to those to whom a vapour bath may be for some reason or other objectionable.

The Mercurial Liquid Bath.

This bath is made by adding half an ounce of corrosive sublimate and a little hydrochloric acid to the water of a warm bath (forty gallons). It is unnecessary here to enter into the actions of this mercury bath beyond saying that it is applicable to many affections of the skin, both constitutional or parasitic.

The Iodine Liquid Bath.

This bath, which is made by dissolving iodine, iodide of potassium, and liquor potassæ in the water of the warm bath has been much recommended in cases of scrofula, chronic rheumatism, and certain skin troubles.

The Arsenic Liquid Bath.

This bath is a very dilute solution of carbonate and arseniate of soda, and is said to be very useful in rheu-

matic arthritis and particular types of cutaneous diseases. The water of this bath is similar to that of some foreign arsenical spas.

The Borax Bath.

This bath is a solution of borax with glycerine super-added. It is particularly serviceable in squamous diseases of the skin, and also in some that are accompanied by much irritation or itching.

The Iron Bath.

This is a solution of sulphate of iron and is of repute for strumous or rickety children.

The Alkaline Bath.

The alkaline bath is made by dissolving an appropriate quantity of the carbonate of either potash or soda in a warm bath. It is of great service in a number of skin diseases, and especially, Dr. Ringer states, in urticaria or lichen. It is a very convenient plan to take this bath and be well lathered in it when a bather is suffering from scabies; this being done prior to entering the sulphur vapour bath. The advantage of the alkaline bath, when so used, is that it softens the superficial layers of the skin and allows them to be rubbed off, thereby laying open the burrows of the female insect, and destroying them.

The Acid Bath.

This bath is made by adding nitro-muriatic acid in proper quantity to a warm bath. It was introduced into use by Dr. Scott as a foot-bath originally, and for this

purpose was mixed much stronger than when employed for an entire bath. It has attained a great and well-deserved reputation for inactivity of the liver, especially that kind due to residence in tropical climates. It is used by "old Indians," not only while out in India, but also long after they have left that country. It acts also as a powerful exciter of torpid skins.

The Bran Bath.

This bath is made by kneading a bag containing a peck and a half of bran in a hot bath. This produces a milky white bath with peculiarly emollient powers, and one which is greatly employed for allaying irritation of the skin as well as for softening and clearing it. The **Starch bath** and the **Gelatin bath** are also emollient baths, the former being very popular abroad, especially among French ladies. The uses of all this class are similar, namely, to soothe and allay irritation of the skin.

Pine, Creosote, Sanitas, and Carbolic Acid Baths

form a group, the members of which are disinfectant in their properties. The three first have a special effect on squamous diseases of the skin, and the pine bath in particular seems to be worthy of careful and extended trial. It was introduced into the Argyll Baths by the late Dr. Tilbury Fox, who expressed himself very strongly about its efficacy, and found it of much benefit to many of the patients who received it there.

Lavender, Conium, Hyssop, and Lime-leaf Baths

form a group of sedative and aromatic baths which are given in the liquid form by mixing their extracts with

the warm bath. They are also employed in the vapour bath by allowing the steam to pass through the dried powder of the plant used.

The Mustard Bath.

This bath is pretty familiarly known as a foot-bath, but it not infrequently happens where active stimulation to the entire surface is required that mustard baths are employed. This bath is classed therefore as an irritant bath.

Medicated Vapour Baths.

The Sultan's bath previously described under Vapour Baths is practically a medicated vapour bath, the steam in its passage into the vapour chambers going through fragrant herbs. In like manner many of the plants whose extracts are used in liquid baths, can be employed for vapour baths by allowing the steam to percolate through the dried herbs or leaves.

The most important bath thus given is the pine vapour bath, its actions being similar to those of the pine liquid bath on the skin in diseased conditions.

The Sulphur Vapour Bath.

This bath is given similarly to the ordinary vapour bath up to the stage when the body has begun to perspire freely. At this point a metal saucer of ignited sulphur is introduced by the attendant through a little trap into a position under the chair on which the bather is seated. As the sulphur burns the sulphurous acid rises and comes in contact with the perspiration covering the skin, and the body is rapidly thus bathed in

a solution of sulphurous acid which readily permeates the skin which has been already softened by the action of the vapour. This bath is much employed in many cutaneous diseases, as well as in parasitic ones, and notably scabies. It will perhaps be worth while detailing the process of bathing used to free the bather from this malady which, notwithstanding every care and cleanliness, is occasionally contracted by the better classes. The clothes of the bather having been removed, all the underclothing is taken away and heated in a powerful steam closet, at a temperature at which all vitality ceases. The bather goes next into a dilute alkaline tepid bath and is lathered and rubbed with firm flesh brushes. A tepid shower next removes the lather and clears the skin, and the bather steps forth- with into the vapour cabinet and is subjected to the vapour and sulphur fumes. On leaving the cabinet he reposes on the couch packed in blankets which are gradually removed one by one and so the body becomes cool. Some bathers prefer finishing with the cold shower and being thus cooled suddenly, instead of by degrees, but the objection to this is that the sulphurous acid is to an extent washed off by the shower. He then dresses in his already disinfected clothing and departs. A course of baths is of course advisable, because although all the existing parasites are destroyed, still some uninjured ova may find their way to the surface and these are met by the subsequent baths. As previously said the liquid sulphur bath is often used instead of the sulphur vapour for the same purpose. It is needless to say that in the sulphur vapour bath the head is excluded from the cabinet, the fumes being so suffocating that breathing would be impossible in them.

The Mercurial Vapour Bath.

This is given in the same manner as the sulphur vapour bath, only that calomel, or the red oxide of mercury or cinnabar are introduced into the vapour cabinet and burnt or rather volatilised. The same process of resting on the

couch and cooling down is undergone. The uses of this bath are too well known to need enumerating.

It is often stated that both the sulphur and the mercurial baths can be given at home, but when one considers that the fumes of these substances spoil nearly everything they come in contact with, and that even at the Argyll Baths special rooms with everything of porcelain or enamel are employed, it can easily be seen how much wiser it is to take them at such an Institution.

The Chlorine Vapour Bath.

A chlorine bath is given in a similar manner to the foregoing ones, only it is the ingredients for evolving chlorine gas that are introduced into the vapour chamber at the appropriate time. Its action is strongly disinfectant and antiseptic, and further it seems certain that the chlorine is absorbed and produces alterative effects, acting more especially on the liver in a way similar to the nitro-muriatic bath previously described.

The Iodine Vapour Bath.

A bath is given with iodine in lieu of chlorine, and it has been said by many to be beneficial. As, however, iodine requires a tolerably high temperature to volatilise it, it is uncertain how far the body is reached by its vapours. Its purposes would be for those ailments for which iodides are beneficial.

Hot-air or Dry Medicated Baths.

These baths are of the same kind as the medicated vapour baths, being **sulphur, mercury, chlorine, and iodine**, and produce similar effects. The difference in their adminis-

tration is that the bather sits in a chamber of hot air instead of in one of vapour. These baths are generally called dry baths and for obvious reasons. The temperature of the hot-air chamber is a point of interest, because the baths can be given at simply the ordinary temperature of the body, no perspiration being produced, and the medicated fumes coming in contact with the dry skin; or else the usual perspiratory effects of a high temperature can first be produced and then the medicated fumes evolved so as to come in contact with the body, whilst the skin is saturated with moisture. The former method is usually adopted when only a limb or a portion of the body has to be acted on. As has before been said, the action of the medicated fumes is similar whether administered in a vapour or a hot-air chamber; however, preference for one or the other is expressed frequently, each kind having its authoritative advocates. The preponderance of opinion seems perhaps to be in favour of the vapour method on the whole.

The Iodine Vapour Bath.

A bath is given with iodine in form of chlorine, and it has been said by many to be beneficial. As, however, iodine is a volatile substance, it is not possible to volatilise it in a chamber, and the body is treated by its vapour. The purpose would be for those ailments for which iodine is beneficial.

Hot-air or Dry Medicated Baths.

These baths are the same as the medicated vapour baths, but the fumes of sulphur, mercury, chlorine, and iodine, and produce similar effects. The difference is in their adminis-

CURRENT PRICE LIST. April, 1885.

	<i>s.</i>	<i>d.</i>
A Cold Bath	1	0
A Tepid Bath 1/- and	1	6
A Warm Bath 1/- and	1	6
A Shower Bath.....	1	0
A Douche Bath	1	6
A Needle Bath.....	1	6
A Cold Bath with Shower	1	6
A Tepid or Warm Bath with Shower, Douche, or Needle Bath	2	0
A Salt-Water Bath, hot, tepid, or cold.....	2	6
A Bran Bath.....	2	6
A Mustard Bath	2	6
An Alkaline Bath	2	6
A Borax Bath	2	6
A Starch Bath	2	6
A Harrogate or Sulphide of Potassium Bath	3	6
A Sulphurous Acid Bath.....	3	6
A Mercurial Liquid Bath	3	6
An Iodine Liquid Bath	3	6
An Arsenic Bath	3	6
An Iron Bath	3	6
A Nitromuriatic Acid Bath	3	6
A Gelatin Bath	3	6
A Pine Bath.....	3	6
A Creosote Bath	3	6
A Sanitas Bath.....	3	6
A Carbolic Bath	3	6
A Lavender Bath.....	3	6
A Conium Bath	3	6
A Hyssop Bath	3	6
A Brine Bath	3	6
A Plain Vapour Bath, with Shower (Russian Bath)	3	6
A Plain Hot-Air Bath, with Shower.....	3	6
A Vapour Bath (complete processes)	4	0
A Hot-Air Bath (complete processes)	4	0
A Sulphur Vapour Bath.....	4	0
A Mercurial Vapour Bath	4	0
A Chlorine Vapour Bath	4	0
An Iodine Vapour Bath	4	0
A Sulphur Hot-Air Bath	4	0
A Mercurial Hot-Air Bath.....	4	0
A Chlorine Hot-Air Bath	4	0
An Iodine Hot-Air Bath.....	4	0
A Sultan's Bath (Vapour or Hot Air)	5	0
An Electric Bath.....	5	0

Subscriptions are received at reduced prices which are obtainable from the Manager. Special arrangements can be made for long courses of Baths.

