## NINETY-THIRD ANNUAL MEETING

# British Medical Association,

BATH, 1925.



Doorway of St. John's Hospital. (From a wood en-graving by Horace Gerrard.) Doorway Hospital.

HE ninety-third Annual Meeting of the British Medical Association will be held at Bath at the close of next month, under the presidency of Dr. F. G. Thomson, physician to the Royal United Hospital, Bath, and consulting physician to the Royal Mineral Water Hospital. The Annual Representative Meeting, for transaction of medico-political business and discussion of the internal affairs of the Association, will open at Bath on Friday, July 17th. The statutory Annual General Meeting will be held on the afternoon of Tuesday, July 21st, and on the evening of the same day the new President will deliver his Address to the Association. The twelve Sections, among which the scientific and clinical work of the meeting is being divided this year, will meet on the three following days. The list of Sections and sectional officers, together with the full provisional programme and time-table and announcements about hotel accommodation, etc., were published in the Supplement to the British Medical Journal of June 13th, 1925. Further details of the arrangements will appear in later issues. On the last day of the meeting, Saturday, July 25th, there will be excursions to places

of interest in the neighbouring West Country. We publish below the third of a series of descriptive and historical articles on Bath.

#### THE BATHS OF BATH.

JOHN HATTON,

DIRECTOR OF THE HOT MINERAL BATHS.

THE Baths of Bath form what is probably the oldest curative establishment in the world. No less than eighteen and a half centuries have passed since the Romans founded their great Thermae, and from some time about the year A.D. 54,

with scarcely an interruption, the hot springs of Bath have been used for the treatment of rheumatic diseases.

If, for a moment, we may leave the clear light of fact for the mists of legend, Bath's beginning as a place of healing is thrown back still another nine centuries, and the earliest patients are discovered to be a royal prince and a herd of swine. Taking into consideration the somewhat inadequate system of recording then in use, our earliest case record, remembeing that its date is 863 B.C., is really remarkably complete.

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Bladud, son of a British king,
Lud Hudibras, becoming afflicted
with leprosy, was banished from
his father's court. Outcast, he
secured the post of a swineherd in
the Avon valley, only to transmit
the disease to the swine. Dreading
his employer's wrath, the prince
drove the herd higher up the
valley until they came to a hot
swamp. Day after day the leprous
pigs wallowed in the steaming
morass, with the result that the
disease entirely disappeared. The
treatment having proved successful
in the case of the swine, Bladud
decided himself to try balneological
measures, with equally happy re-

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measures, with equally happy results. Returning eventually to his home, cleansed of his leprosy, the outcast was welcomed and in due course succeeded to his father's throne. In later years he returned to the scene of his wonderful cure, there to found his capital, and, enclosing the springs, he built the first bathing establishment and the first city of Bath.

An interesting case, and a picturesque story, perhaps with more than a grain of truth in it; but the proximity of ancient ways and early settlements affords more reliable presumptive evidence of the pre-Roman use of the hot springs.

With the coming of the Romans we get on to surer ground, and in the wonderfully preserved remains of the Baths of Aquae Sulis the establishment of a definite system of balneology may clearly be seen.

Roman Bath was essentially a health resort. It was neither a military camp nor a city with a municipal charter, but a spa, drawing its patients chiefly from Britain—soldiers invalided from the garrison stationed in the island, a town councillor from Roman Gloucester—with an occasional visitor from the western parts of the Continent, from the places we now know as Trèves, Metz, and Chartres; no slight journey in those days, and an indication that the fame of the springs had become widely known.

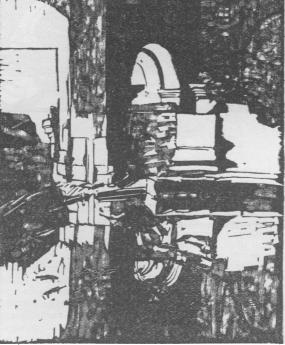


Fig. 1.—Roman Circular Bath. (From a wood engraving by Horace Gerrard.)

#### THE ROMAN BATHS.

The Roman Bathing Establishment, dating in its earlier portion from about the middle of the first century, appears to have been extended or

altered at least twice during the subsequent three hundred and fifty years of Roman rule. Evidence of this is clearly seen in the eastern portion of the Roman Baths, which has been excavated during the last

two years. Here later hypocausts have been superimposed on previous Roman work, which in its turn had been built on a filled-in bath of still earlier date. When this middleperiod work was broken through last year the still perfect masonry of the oldest bath of all was seen again for the first time since it was covered in by the Romans themselves, probably in the second century. At the moment of writing this newly discovered Roman work is not open to the public, but it will be on view before the British Medical Association meeting in July.

Occupying a hall 110 ft. by 68 ft., the Great Bath, with a water surface of 82 ft. by 40 ft., formed the principal feature of the Roman Bathing Establishment. The original pavements, or scholae, surrounding it are in a good state of preservation, and considerable portions remain of the rectangular and semicircular recesses or exedrae, similar to those at Pompeii, three on each of the longer sides, evidently provided for the clothes of the bathers or for rest and retirement.

The large bath was also supplied with a jet of cold water to serve the purpose of a douche

or to quench the thirst of the bathers, a long section of Roman pipe remaining in situ, which appears to have been used for the purpose of conveying cold spring

water to the bath.

Covering the floor of the bath is the original Roman lead, laid in sheets 10 ft. by 5 ft. and weighing 40 lb. to the square foot. The lead was obtained from the Roman mines in the Mendip Hills, a few miles from Bath, while the buildings themselves were constructed of Bath stone, obtained from the hills in the imneighbourhood. mediate preservation of the Roman carvings is a testimony to the lasting properties of this famous building stone.

The well known Roman system of bathing-the preliminary hot chambers, forerunner of the Turkish bath, followed by batharrives bath, followed by bathing in the large baths, with subsequent massage and the use of unguents—could here be carried out in every detail. All the baths were supplied with water from the hot springs, and from their construction the several bathing construction the several bathing pools, of which no fewer than six have been discovered, appear to have been used at different

temperatures.

A large circular bath, some smaller baths, and hypocausts or heating chambers, forming the system of hot-air baths, may also be seen, while, partly obscured by

the foundations of the modern Queen's Baths, are other large baths indicating the vast extent of the Roman Bathing Establishment.

The recent excavations have resulted in discoveries of exceptional interest. Two large rectangular baths have been found, over which at later periods the Romans built hypocausts, the pilae of which still remain in situ. The apsidal ends of two sudatoria have also been found, one containing a portion of the original tessellated pavement supported on pilae, with the air-shaft intact whereby the heat was obtained from the furnace,

which is still clearly visible.

The great culvert, built by the Romans for carrying off the waste water from the baths, has also been discovered, and, its masonry still sound and watertight, is now used for its original purpose, while under the King's Bath the waters of the King's Spring are still protected and enclosed by the Roman reservoir built in the first century to conserve the mineral water and prevent the admixture of any cold or surface water.

A small ante-chamber has just been built to enable visitors to see the head of the culvert and the Roman arch in the outer wall of the reservoir, and the steps which led to the dipping well whence the Romans drew the mineral water for drinking. Until this well was found it was always supposed that the Romans only used the waters externally, but the discovery of drink ng cups in the bottom confirmed the view that from this

well, supplied, as is the Pump Room to-day, with water from the King's Spring, the Romans obtained the mineral water for internal use. An inscription over the bronze doors of the antechamber records that-

"This Hot Spring used by the Romans has been from time immemorial the principal source of the health-giving waters of Bath."

#### THE BATHING ESTABLISHMENT TO-DAY.

As this article is not intended to be a disquisition on Roman remains, it is time to leave the ancient and visit some of the modern departments of the bathing establishment. These represent a capital value of well over £200,000, and constant improvements to meet the advance of knowledge, and (so far as the past few years are concerned) almost continuous additions, have produced an exceptionally well equipped balneological institution.

Three buildings in close proximity form the principal part of the bathing establishment. The Queen's Baths, adjoining the Grand Pump Room; the Royal Baths opened in 1916 by

Field-Marshal the Earl of Ypres on his return from France—a graceful recognition of the action of the Bath Corporation in placing the facilities of the baths at the disposal of the army medical authorities (and it may be recorded that Bath had the privilege of giving no fewer than 226,889 treatments to men wounded and invalided in the great war); and the Old Royal Baths, at present undergoing reconstruction as a suite for Plombières douches and large pool treatment. The Bath Street wing of the Royal Baths was opened in 1919 by Dr. Christopher Addison, the first Minister of Health, and the electrotherapy department was added a couple of years later.

Let us for a moment follow a patient visiting Bath for "the cure." First he will come to the booking office in the en-trance hall of the Royal Baths, there presenting doctor's prescription, arrange the times of the treatments and receive the appointment cards and the bath tickets, purchasing at the same time a visitor's ticket, which gives the entrée to the Pump Room an the gardens and admission to

the concerts and entertainments—a kind of voluntary kur-tax. Now he will go to one or other of the three main departments for his bath or other treatment. It may be a deep bath, the oldest and perhaps the most important form of treatment. Immersed in some five hundred gallons of the mineral water, freedom of movement is easy, and the undercurrent douche—a powerful jet of water usually at a higher temperature than the bath—can be applied to any part of the body. Patients too helpless even to walk down the steps are lowered into the water in chairs actuated by hydraulic power. Or he may be ordered the modified form of immersion in a reclining bath, or the more tonic procedure of the aeration bath.

When the stage is reached for something more vigorous perhaps some form of douche massage may be prescribed. Bath was the first spa to introduce the Aix douche into Britain many years ago, and the natural hot mineral water douche combined with massage and movements has ever since held a prominent place in the Bath system. There has been a great demand for both Aix and Vichy douche treatment; two of the Vichy douche suites are now being enlarged, and it is hoped, before the meeting of the

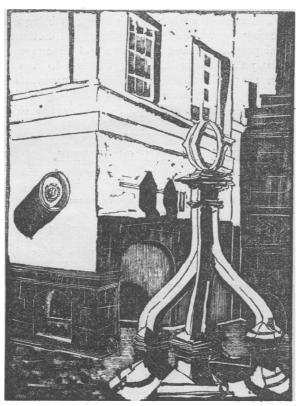


Fig. 2.—The King's Bath. (From a wood engraving by Horace Gerrard.)

British Medical Association, to have an entirely new suite completed and ready for use.

Intestinal douching on the Plombières system was introduced some years ago, and successful results necessitated more and more accommodation. Now it has been decided to concentrate this treatment in one building, and the visitors in July will find the Old Royal Baths in the process of being reconstructed into a suite of Plombières baths, embodying the details of equipment which have proved successful at Bath, together with the experience of Continental spas.

The Old Royal Baths were designed by John Wood the younger in 1778, and in adapting them to modern requirements every care has been taken to retain Wood's ingenious planning and the many delightful old features that give the characteristic Bath flavour. In the centre of the block is a large pool supplied direct from the Hot Bath Spring which will be used for the treatment of spastic and flaccid paralysis by voluntary and controlled movements, which

has been in successful use at

Bath for some time.

The concentration of the Plombières douches into the Old Royal Baths will release some particularly good rooms in the Royal Baths for vapour treatment, now given on the lower floor of the Queen's Baths. In certain gouty conditions, and in some of the subacute and chronic forms of eczema, this treatment by the vapour from the mineral water is much used.

Sir William Ramsay's estimation of the exceptionally high radium content of the natural gases which are given off from the springs led to the installation of throat and nasal sprays in which the mineral water is atomized by these radio-active gases, and of means whereby the natural gas may be administered by inhalation. The gas is 96.4 per cent. nitrogen and 3.5 per cent. CO<sub>2</sub>, and the nitrogen contains the rare gases argon, neon, and helium. niton or radium emanation in the gas is equivalent to 33.65 milligrams of radium per million litres. The room for this treatment is in the Queen's Baths, directly overlooking the King's Spring, whence twater and gas are collected.

Many other methods are in use, but this article must not resolve itself into a mere list of treatments available at the baths; there will be many opportunities of seeing them all demonstrated during the third week of July. Brief mention, therefore, need only be made of the Department of Electrotherapy, where the usual light and heat treatments and the various hydro-electric methods are administered, and ionization, diathermy, high frequency, and other treatments are employed, usually in conjunction with the mineral water baths, which are often ordered only on alternate days. A useful addition—an ultra-violet ray room for general irradiation-was opened last month by Dr. Leonard Hill, F.R.S., director of the Physiological Department of the National Institute for Medical Research.1 There is also one of the very few installations in this country of Zander machines for mechanotherapy.

There are two large swimming baths supplied with mineral water cooled to about 80° to 84° F., which afford an agreeable form of bathing for patients who have reached the convalescent stage and are ordered the full use of their limbs. And they fulfil the no less useful purpose of helping

to keep in health those who resort to them for the exercise of swimming.

The Pump Room and King's Bath.

The internal use of the waters is an important part of the "cure," and the Pump Room, where the waters are served for drinking, is the meeting-place of all who come This handsome, well proportioned building, designed by Baldwin in 1796, bearing on the pediment the appropriate motto from Pindar, APISTON MEN  $Y\Delta\Omega P$ , is a fine example of a great Georgian apartment. At one end is the musicians' gallery, and at the other a statue of Beau Nash by Hoare. Below is the famous Tompion clock to which Dickens alludes in the pages of Pickwick. It occupied a place in the first Pump Room, built in 1704 under the auspices of Nash, to whom the clock was given by its maker, Thomas Tompion, the most celebrated of all English horologists, in gratitude for benefits received from the Bath waters. Some of those, by the way, who motor from London to the Annual Meeting

-which they can do without getting stuck in the "bottleof Brentford now that His Majesty has opened the great wide way to the West-may remember that it was this same Thomas Tompion who was called in to measure with accuracy and precision the famous Bath Road, which he found to be 107 miles from London to Bath.

where Tompion's clock still ticks-there are some beautiful original settees of Chippendale period and a couple of sedan chairs, and several portraits of notables connected with Bath.

The concerts proper — the morning music in the Pump Room is really to stimulate conversation and enliven the process of drinking water, actually odourless and almost tasteless, but declared by Sam Weller to have "a strong flavour of warm flat-irons "are held in the concert hall of the Roman Promenade, a building designed by Brydon in 1897 and forming part of the same block. Here the Pump Room orchestra plays from October to May, while from May to October the band performances are

To return to the Pump Room

given in one or other of the The Institution Gardens are quite parks and gardens. near to the bathing establishment, and here during the summer season the waters are also served for drinking en plein air.

Perhaps the most interesting thing about the Pump Room is the view of the King's Bath from the large window on the south side. In the centre rises the King's Spring, the largest of the three hot springs supplying the baths and Pump Room. The others—the Cross Spring and the Hot Bath Spring-rise a short distance only away, within the precincts of the bathing establishment, the three yielding half a million gallons a day. The water rises at a temperature of 120° F., and in quantity and temperature the springs are entirely unaffected by climatic or seasonal changes.

In the eighteenth century the King's Bath was the fashionable bathing place, although when Pepys visited Bath in 1668 he "looked into the Baths, and found the

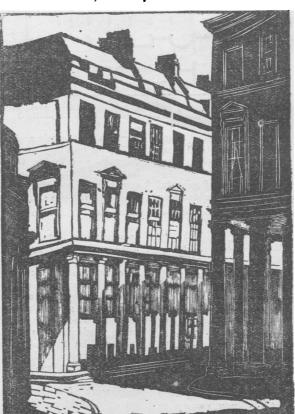


Fig. 3.—The Bath Street Colonnade of the Royal Baths. (From a wood engraving by Horace Gerrard.)

2 Αριστον μεν ύδωρ-

Which means 'The pure Element Is for Man's belly meant Ingoldsby Legends.

King's and Queen's full of a mixed sort of good and bad, and the Cross almost only for the gentry." The broad pencil of Rowlandson and other caricaturists found ample material in the mixed bathing of the Georgian period—the

gentlemen in canvas waistcoats and drawers, the ladies' robes adorned with yellow ribbons. Floating on the water were little trays containing scents and sweetmeats for the delectation of the bathers, while their friends strolled on the broad paved promenade surrounding the bath, finding, with Christopher Anstey, that

"Twas a glorious sight to behold the fair sex All wading with gentlemen up to their necks."

The handsome stone balustrade still exists, with the in-

scription recording that it was the gift in 1624 of Sir Francis Stonor, Kt., in return for relief given by the bath from "gout and aches in the limbs," the donor "living many years after well in health to the age of near ninety."

The brass rings in the walls, the votive gifts of grateful bathers between 1602 and 1784, bear many interesting

inscriptions. One is inscribed with the name of Barbara, Duchess of Cleveland, and another was presented by John Revet, brazier to King Charles the Second, who attributes his recovery to "God's Marcy and Pumping."

Flowing from unknown depths for

known depths for untold ages, the King's Spring is the very fons et origo both of the bathing establishment and the city of Bath itself. One side of the King's Bath forms part of the Roman Thermae, opposite is the wall of the eighteenth century Pump Room; the west end of the bath is the beginning of the present bathing establishment with all its modern equipment and scientific methods, while at the other end is the concert hall to remind us of the im-

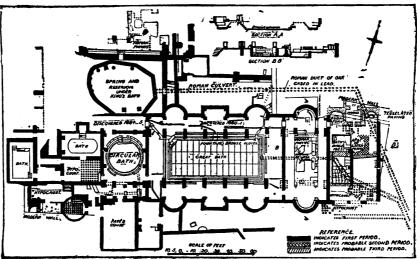


Fig. 4.—Plan of the Roman Baths at Bath. (By kind permission of Mr. Alfred J. Taylor, Architect to the Baths Committee.)

portant part music and recreation now play in a spa cure.

To the building of the King's Bath Roman and Saxon,
Norman and Tudor, Georgian and succeeding generations,
have in turn contributed, thus, as an inscription on the
south wall records, connecting in work and object the

modern with the ancient world.

### England and Males.

NOTTINGHAM GENERAL HOSPITAL: RANSOM MEMORIAL LABORATORY.

THE new Pathological Laboratory of the Nottingham General Hospital, which has been instituted in memory of Dr. William Henry Ransom, F.R.S., and his son, Dr. William Bramwell Ransom, was opened on June 12th by Sir John Rose Bradford, K.C.M.G., C.B., F.R.S., consulting physician to University College Hospital, London. The ceremony was held in the board room of the hospital. Sir Charles Seely, who presided, read a message from Mr. James Forman, president of the hospital, expressing deep regret at being unable to be present and pay respect to the memory of two men, father and son, who did so much for Nottingham and its General Hospital. The chairman said that Dr. W. H. Ransom was appointed honorary physician to the institution in 1854, and continued as conicer physician until 1900. senior physician until 1890, when he resigned. His place was taken by his son, who carried on the duties until 1909. During their combined period of office the medical profession and the hospitals of the country performed one of the greatest services to the human race which any set of men had ever done; the happiness and comfort of life had increased enormously. In the general advance of medicine and surgery the Ransoms bore a full share of the work. He did not suppose anyone had striven harder for their fellow men, and with less regard for their own comfort and health.

Sir John Rose Bradford, in the course of his address, paid tribute to the distinguished services rendered by the Ransoms to medicine and to science, and to their work in promoting the welfare of the inhabitants of Nottingham. For over half a century father and son were identified with the manifold activities of the city. Neither confined himself to the narrow pursuit of his profession, but each took an active part in all work designed to make the individual more efficient for the discharge of his duties as a citizen. It was only fitting, therefore, that some acknowledgement in the form of a permanent memorial should mark the

appreciation felt by their fellow men for their devoted work. The elder and the younger Ransom resembled each other in that their early work was not concerned with the investigation of a definite medical problem, but was carried out with the object of elucidating some fundamental question in biology. In other words, before specializing in their life work as practitioners of medicine, they acquired a wide practical knowledge of the larger subject of biology, of which medicine was but a part. The history of medical science, like that of science in general, taught that the great advances had come about as a result of some discovery in what was misnamed abstract science. Nowadays the value of laboratories and laboratory methods in the daily work of medicine was so universally recognized that not only could no hospital dispense with one, but no practitioner could do his work without having means of access to such an institution. The Ransoms were pioneers in recognizing that development must take place, and each throughout his career developed such methods to the fullest possible extent under the conditions then existing. It was more especially for that reason that the form taken by the memorial was so singularly appropriate.

At the conclusion of the ceremony the Bishop of

At the conclusion of the ceremony the Bishop of Southwell performed a short dedicatory service; and a vote of thanks was accorded to Sir Charles Seely, Sir John Rose Bradford, and the Bishop, on the proposal of the senior physician, Dr. F. H. Jacob, seconded by Mr. J. K. Wright. Afterwards the company proceeded to the new department in Amberley Street.

The Ransom Memorial Laboratory, designed by Messrs. Evans, Clark, and Woollatt, is admirably equipped and is already in full working order. The medical staff has long felt the need of a pathological department as an integral part of the hospital. The laboratory is in charge of Dr. J. Kilian Clarke, late of St. Mary's Hospital, London.

#### A NEW LONDON RESERVOIR.

Less than a generation ago it seemed not improbable that London would go to the mountains of Wales for its water. A Royal Commission made a long inquiry, and a scheme was drawn up, but to carry it out would have