

*Medical and Surgical Reports*, at intervals, which have now been continued forty odd years and have received favorable consideration here and in Europe. When these reports were begun, there was only one hospital (in Philadelphia) which published professional reports. In these four features of a new hospital, namely, competitive examinations, nominations by its staff, clinical teaching, medical and surgical reports, I feel great pride that my good fortune gave me a position as surgeon, and long president of its staff, which enabled me to devote my best efforts to forwarding these measures (some of them novel), so important for the good of our profession, and for the character of the hospital itself. It would be unjust to the long line of faithful trustees and to the present very sagacious incumbent, their chairman, not to say, and it cannot be said too strongly, how much the material success of this great hospital has depended on their care, and on the unstinted liberality of the municipal government.

Having been associated as vice-president and then president for a number of years of the Boston Medical Library, I feel at liberty to speak of it.

Beginning as a book club (the Society of Medical Observation), under the presidency of Dr. Oliver Wendell Holmes, and the untiring efforts of its librarian, Dr. James R. Chadwick, the library was founded and has now become the third in the United States, the Army Medical Museum Library in Washington and the College of Physicians and Surgeons in Philadelphia being its only superiors in number of volumes. I was instrumental in securing for it \$50,000; but Dr. Clarence J. Blake did better and secured for it a legacy of \$150,000. It now owns and occupies a fine building, has a very commodious reading room, numerous halls for society meetings, and takes every medical periodical worth reading, and in several languages. It is freely open to its four hundred and fifty Fellows, many associate fellows and to medical students. Its convenience and benefits to the busy doctor are beyond compute.

(To be continued.)

### Clinical Department.

#### BATH REICHENHALL. A HEALTH RESORT OF SOUTHERN GERMANY.

BY HORACE PACKARD M.D., BOSTON.

In this little Bavarian village, hidden away from the great world, a casual tourist would wholly miss the charms of the natural environment, the wonders of geological formation, the marvelous health-giving qualities of the air and waters, and the atmosphere of romance and tradition.

Well-known is this secluded retreat to the outdoor-loving Saxons, who have flocked here for many decades for the healing effects of the saline springs which yield never-ending volumes of water heavily charged with earth salts. Commercially, sodium chloride is the most important ingredient, and for the recovery of this alone an enormous evaporating plant covering acres sends

out into the world annually eight thousand tons of pure table salt.

The chance observation, many years ago, that persons suffering from otherwise incurable chronic (non-tubercular) pharyngitis, laryngitis and bronchitis were speedily relieved and cured, gradually brought the place into local prominence. At present each summer brings thousands of people from the neighboring provinces of Germany and Austria, and not a few from Russia, in search of the healing, health-giving influences of Bath Reichenhall.

Just what conditions conspire to bring about these happy results it is difficult to specify. There may be something especial in the altitude combined with the pure air which rolls down from the pine-clad mountain sides laden with aroma, or the invigorating tonic of the saline baths.

This southeastern portion of the great Alpine mountain region is a geological curiosity, for the reason that nowhere else in the known world is there such an enormous deposit of mineral salt — literally, mountains of it are piled up here, some portions showing as high as 95% pure sodium chloride.

The waters of the mountain glaciers and streams percolate down through and over the deposits of salt, licking it up to the point of saturation, finally emerging in an exhaustless and priceless spring of salt brine. This bears other mineral salts in lesser proportion, and also shows a considerable degree of radio-activity. So great is the output of the Reichenhall spring that in addition to the immense quantities used here in the recovery of commercial salt, and for therapeutic purposes, millions of gallons are pumped through conduits to neighboring towns.

The tonic effect of the saline baths evidently holds a high place in the estimate of the physicians who direct the medical affairs of the place. Artificial means have been introduced to intensify the natural healing qualities of the various agencies, and there is a great outdoor vaporizing structure which is supposed to charge the whole surrounding atmosphere. A covered promenade around this gives opportunity for out-of-door exercise and saline inhalation treatment even in inclement weather. In high season more than sixteen thousand bathers resort to the various bath establishments. Very much capital has been expended in establishing and fitting up these bath places. For example, one of the finest and most completely equipped has cost approximately two hundred and fifty thousand dollars, and includes interesting features characteristic of all of them, as follows:

The healing qualities of the air, supposedly enhanced by the aroma of the pines, are artificially elaborated by the equipment of inhalation chambers into which a fine spray of a combination of the natural saline water with an ethereal extract of pine is forced, completely saturating the atmosphere like a thick mist.

The therapeutics of atmospheric pressure has also received much attention here, and at present every bath place is fitted with pneumatic cabinets

which can be hermetically sealed. In these the air pressure is gradually raised to a high point.

Patients suffering from asthma and chronic bronchitis claim great relief from daily treatments of this kind of one to two hours' duration.

Now to a brief survey of the real therapeutic effects of all this: It is to be borne in mind that the chief therapeutic claims of Reichenhall are in the treatment of non-tubercular respiratory difficulties, chronic bronchitis, asthma, etc., although a very high degree of efficiency is demonstrated in cases of neurasthenia and functional heart difficulties.

The first impressive fact which confronts us is that there is an annual list of visitors of upwards of forty thousand. The writer's first impression in viewing the elaborate and expensive display of machinery for bathing, inhaling and pressure breathing was of a great awe-inspiring ceremonial, but subsequent personal contact with patients now here under treatment has changed that attitude to wholesome respect and admiration. Indeed, some of the recoveries seem little short of miracles. It is not the writer's purpose to report cases in this brief communication, but it seals a well-established fact that old chronic cases of bronchitis and bronchorrhea of twenty and thirty years' duration fully recover here under one season's treatment, and harrassing cases of asthma are so relieved that life becomes again tolerable.

Cases of nervous breakdown from overwork also are reported to do wonderfully well under the bath treatment. The baths are very carefully graded, and under no circumstances are the saline waters used at full strength. The beginning is usually with a  $\frac{1}{2}\%$  solution, at a temperature of about 68° F. for five minutes. A daily increase of the saline by  $\frac{1}{2}\%$  up to 10 follows and a gradually lengthened time up to twenty minutes. From personal experience the writer can attest that the tonic effect of the saline baths is most agreeable and soothing for tired brain and body.

## Reports of Societies.

### AMERICAN SURGICAL ASSOCIATION.

MEETING, DENVER, COLO., JUNE 19-21, 1911.

(Continued from No. 12, p. 452.)

#### THE USE OF REBREATHING IN THE ADMINISTRATION OF ANESTHETICS.

By W. D. GATCH, M.D., Baltimore, Md.

(1) Rebreathing, when properly regulated, and when the oxygen supply is ample, is harmless and can be put to a valuable use.

(2) If we can prevent anoxemia, our concentration of vapor and too great a depth of anesthesia, we can obviate most of the serious objections to the closed method of giving ether.

(3) The process of rebreathing prevents the elimination of ether and chloroform by way of the lungs, and over-ventilation of the lungs hastens the elimination.

(4) It is suggested that after any administration of ether or chloroform over-ventilation of the lungs be brought about by the use of oxygen and carbon dioxide.

(5) Morphia, or any drug which depresses the respiration, retards the elimination of ether or chloroform.

(6) A method of administering nitrous oxide, and, if necessary, ether with oxygen, by the method of rebreathing, is described and its advantages and dangers discussed.

Its chief advantages are: (1) The rapidity and pleasantness with which anesthesia is established. (2) The ease with which any depth of anesthesia can be secured. (3) The prevention, to a very large extent, of post-anesthetic vomiting, pulmonary complications, and abdominal distention.

Its chief dangers are: (1) Anoxemia, due to a failure to give sufficient oxygen, or to an obstructed air way. (2) Impediments to the respiration, which in a long anesthesia may exhaust the patient. (3) With cardiac cases, excitement during the period of induction.

#### EXPERIENCE WITH INTRATRACHEAL INSUFFLATION AS A METHOD OF ANESTHESIA.

By S. J. MELTZER, M.D., New York, N. Y.

The essentials of the method of intratracheal insufflation consist in the deep introduction into the trachea of a flexible elastic tube, the diameter of which is much smaller than the lumen of the trachea, and the driving through this tube of a nearly continuous stream of air which returns through the space between the tube and the walls of the trachea. The distinguishing features of this method consist, first, in bringing pure air directly to the larger bronchi with the elimination of the dead space represented by the mouth, pharynx, larynx and trachea. Second, the continuous recurrent air stream prevents the invasion of infectious material from the pharynx into the trachea. The usefulness of the method is threefold. First, by keeping up an efficient respiration in cases where the normal mechanism of external respirations fail; second, by overcoming efficiently the difficulties presented by double pneumothorax; third, it affords a safe and reliable method of anesthesia, especially for the administration of ether.

The author cites a number of experiments where the insufflation anesthesia lasted for hours, as long as twelve, without a single case developing any bronchitis or pneumonia which could be attributed to the anesthetization; also experiments, which proved conclusively the impossibility of the inhalation of vomited material or blood from the pharynx. He then calls attention to the difference between insufflation and positive pressure apparatuses, and how insufflation retains all the features of safety which the differential pressure does not do, for the life of the patient with double pneumothorax persists on a greatly reduced supply of external and internal respiration. The author then goes into a discussion of the principles and methods of administering ether by this method.

#### FATALITIES, SIMULATING STATUS LYMPHATICUS, INDUCED IN NORMAL SUBJECTS BY INTERMITTENT ETHER ANESTHESIA.\*

By YANDELL HENDERSON, Ph.D., New Haven, Conn.

Deaths under anesthesia are usually either primary respiratory failure or primary cardiac failure. The object of this paper is to show that the latter, no less than the former, are the result of unskillful methods of anesthesia. Neither is necessarily due to any inherent hypersusceptibility in the patient. "Unsuspected heart disease" and "status lymphaticus" are usually mere excuses. Neither form of death is necessarily the result of anything done wrong by the anesthetist at the

\* Full text of paper to be published in *Surgery, Gynecology and Obstetrics* under the title "Primary Heart Failure in Normal Subjects under Ether."