

An Address
ON
MEDICAL PROBLEMS:
THEN AND NOW.

Being the Presidential Address at the Opening Meeting of
the Medical Society of London on Oct. 11th, 1920,

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THE choice of a subject on which to address you has been difficult; it hardly seemed suitable to discuss a particular disease on such an occasion, but it struck me that it might interest you if I tried to show our ancestors' attitude of mind to medical problems, and to tell you what subjects were chiefly being talked about in the first 25 years of this society's existence, for thus we may each be able to contrast ourselves with the physicians and surgeons who lived in the end of the eighteenth century, and to dimly picture them at their work. The Medical Society of London was founded in the year 1773, two years after the Guy's Hospital Physical Society was born, other similar societies followed, and it is quite clear that our forefathers, at that time, were much in earnest in their desire to add to medical knowledge. It was not only that a few geniuses shone, but large numbers of the profession were enthusiastically determined to learn all they could, and, to quote from the preambles of the two societies mentioned, they—

"Desirous of improvement in medicine and the other sciences nearly allied to it and convinced of the numerous and great advantages arising from a free communication of observations and opinions," instituted this society "to give the practitioners in the healing art frequent opportunities of meeting together and conferring with each other, concerning any difficult or uncommon cases which may have occurred; or communicating any new discoveries in medicine which may have been made either at home or abroad."

SCIENCE WITH LITTLE MECHANICAL AID.

Because over a century ago doctors had not the help of the scientific instruments we possess some are inclined to consider our predecessors to have been unscientific. Nothing could be more unjust; the above quotations speak of medicine as a science and of communicating new discoveries. Your past President, James Sims, began a paper read before this society thus:—

"In philosophising there are two grand sources of error. The first is the determination of what anything is prior to the making of proper experiments upon it. The second is the taking for certain the first conclusions drawn from appearances."

There were admirable papers by John Sherwen on the effects produced by the absorption of tartar emetic and arsenic from the skin. He says:—

"I made the first trial upon myself, a duty which I think incumbent on every man who wishes to strike out new discoveries in medicine, and more especially when he attempts the use of dangerous drugs."

He took the precaution, before publishing his results, of repeating the experiments upon others who were unaware of the drug applied, for he was anxious to avoid the fallacy that he might by suggestion cause, in himself, the phenomena he expected. His experiments were repeated and confirmed by B. Hutchison. These two observers proved that symptoms, similar to those which follow the ingestion of these drugs, could be induced by applying them to skin, a matter in those days of considerable importance, for both were therapeutically used externally. Dr. E. Harrison had a patient who swallowed two iron nails; he gave him 7 fl. oz., 5 fl. dr., 20 m. of dilute nitric acid in the course of six days, one nail, much corroded, was passed by the bowel, and he suspected that the other had been completely dissolved by the acid, but before expressing this opinion in print he persuaded a dog to swallow some nails by wrapping them in meat; he then gave him acid, and found, at a subsequent autopsy, that the nails had been dissolved in the dog. There is an elaborate and most careful paper by Charles Kite "On the submersion of animals, its effects on the vital organs and the most probable method of removing them."

No. 5068.

Anyone nowadays working at the subject of death by drowning ought to consult this paper.

Other experimental papers which may be mentioned are: "On the effects of the compression of the arteries in various diseases," by Dr. H. Parry, and "Experiments made on the laryngeal and recurrent branches of the eighth pair of nerves, with a view to determine the effects of the division of these nerves on the voice," by J. Haighton, and by the same author, "Experiments on vomiting designed to show that vomiting cannot take place by the stomach only. The abdominal muscles and diaphragm must coöperate." In 1794 we find that Mr. Coleman relates to the Guy's Hospital Physical Society that he has ligatured the carotid of an ass in two places and has observed that the blood between the ligatures was coagulated, and that he brings forward these results as he considers they have an important bearing on the treatment of aneurysm.

Value of Evidence.

Enough has been quoted to show that then the scientific value of experiment was acknowledged, but our ancestors also had open minds appreciative of the value of evidence. For example, in Vol. IV. of our Memoirs, Dr. Samuel Black describes how in a case of angina pectoris he found, after death, extreme ossification of the coronary arteries. He mentions that some have considered angina pectoris to be due to diaphragmatic gout, but, says Black:—

"If a physician will not carefully discriminate between casual conjunction and a necessary connexion his practice will in many cases be unsuccessful, his judgment erroneous, and his errors fatal."

In the same volume is a paper by James Sims on the internal use of silver in "The Epilepsy." He writes:—

"We know very little of the causes or of any different species of epilepsy. To read authors, a person would be led to suppose that these things, together with the method of cure, were well known, whereas I will venture to assert that hitherto very little is known of this disease, everything concerning it being involved in the greatest doubt and obscurity, if we except the description of a single fit and that it returns at uncertain intervals."

In 1783 Dr. Hawes got up and told the members of the Physical Society that he had heard from a practitioner of the case of a man insensible, who had been revived by applications of cold. He was particularly pleased to relate this, for in his lectures he had always advised warmth in these cases. Surely scientific openness of mind and candour could go no further than this and it will be well for all of us if we constantly remember Dr. Hawes.

We can picture the vigour with which attention was directed to sciences bearing upon medicine, when we read that a debate on fermentation lasted four evenings and one on animal vitality was continued for six successive nights. The very fact of the foundation of these medical societies shows enthusiasm for the enlargement of professional knowledge. Papers from all parts of Great Britain and Ireland, from the Colonies, even including so small a one as St. Kitts, were read, careful post-mortem examinations were sometimes made, bold operations, such as Cæsarean section, were undertaken, and cases were recorded with an exactitude and care that might well be imitated to-day. Our forefathers were trained observers, probably more highly trained than we are, for they were more dependent on themselves, as they had no stethoscopes, no microscopical examinations of the blood and urine, no bacteriology, no ophthalmological, laryngological, cystoscopic, and X rays examinations to help them. We have now so many aids by which the observation of the patient may be extended that it requires careful reflection to enable us to imagine the difficulties under which medicine was conducted at the end of the eighteenth century. We have more knowledge than our ancestors, for manifold additions have been made to it, and our instruments and methods of investigation have become more numerous and precise, but if anyone will read these old Memoirs and Proceedings he must conclude that physicians and surgeons then had as much wisdom as we have, and from their scanty data drew conclusions as skilfully as we do from the more numerous facts at our command. They had as great devotion to their profession, as earnest a desire to advance knowledge, as keen observation, as good a perception of the value of experiment and evidence, as accurate powers of thought as their present-day descendants; indeed; there is no reason for supposing that our minds are better than

theirs. We are probably making mistakes which to our descendants will appear as gross as those of our ancestors appear to us.

ERRONEOUS METHODS OF TREATMENT.

As a century ago knowledge was circumscribed in comparison with its present-day extent, and proper treatment depends on it, we find that in this department the errors of the past are manifest. All surgery was hampered by the fact that anaesthetics and micro-organisms were unknown; medicine was not for another 50 years to escape from the doctrine that bleeding was almost always desirable, but when the error of almost universal bleeding was widely seen the conclusion was incorrectly reached that no bleeding is beneficial, and even now it is not done as often as it should be. The amount of blood withdrawn was often prodigious; for example, in the first volume of our Memoirs a case is recorded in which the patient, although bled in the morning, was in the evening bled to 56 fl. oz., and many patients were undoubtedly bled to death. The confusion was made of attributing the symptoms produced by the bleeding to the disease; often we read of patients who, from accident or confinement, had lost much blood, who were bled to large amounts, and of those in whom, as the pulse was weaker after a venesection than before, this was repeated. Our emancipation from this error is due, in the first place, to the publication in 1830 of Marshall Hall's "Researches Principally Relative to the Morbid and Curative Effects of Loss of Blood." Another example of failing to distinguish between the effects of the remedy and those of the disease sometimes seen in the older papers, is that the symptoms caused by overdose of mercury were ascribed to the syphilis for which it was given. For all we know we may still be unwittingly, on some occasions, attributing the effects of treatment to the disease for which the treatment is given; indeed, I have myself seen this done, as, for example, when symptoms really due to overdosage with thyroid are ascribed to the myxoedema for which it has been prescribed. Blisters were much more in vogue 150 years ago than they are now, but we must remember that they were often employed in cases which would in these days be passed to the care of a surgeon. Setons have rightly gone out of fashion, so, too, have tobacco enemata; sometimes an infusion of the leaves was given; sometimes tobacco smoke was passed into the rectum. The interesting case is recorded of a man in whom a piece of beef became impacted in the oesophagus; it could not be moved by a bougie, nor could any emetics be got past it into the stomach; he was given a tobacco enema which led to his vomiting the pieces of meat. Large quantities of Peruvian bark were often given for all sorts of disorders other than malaria; many physicians—e.g., Dr. William Saunders, wrote books about it. It certainly did no harm, but acting as a bitter and so aiding digestion it must often have been beneficial. Let those who criticise this wholesale administration of bark remember that malaria was rife in many parts of Great Britain, that as its cause was unknown and it had not been differentiated from other diseases, and as the benefit of bark was in some instances so dramatic, it was almost natural to give it for all sorts of conditions. Do we not now often give drugs—e.g., iodide of potassium—on equally or even more slender grounds?

THE PATHOLOGY OF OUR FOREFATHERS.

Leaving treatment and turning to pathology, these papers of distant times show how firmly fixed in our forefathers' minds was the doctrine of vicarious menstruation. Bleeding from the lungs and from the gastro-intestinal tract was frequently ascribed to this cause, and belief in it died hard, for as recently as 1897 Oser says:—

"Kuttner has from the material of my *Poliklinik* shown that in women vicarious bleeding into the stomach in place of menstruation or bleeding associated with menstruation may occur."

The reason of this mistake was that, although many physicians made autopsies, yet the science of morbid anatomy founded, as it is on systematic post-mortem examinations, had not then been established. We now know that the cases of so-called vicarious menstrea-

tion from lungs were, for the most part, examples of hæmoptysis due to tubercle, and those in which the bleeding came from the gastro-intestinal tract were really instances of gastric ulcer, duodenal ulcer, gastrostaxis, cirrhosis of the liver, or piles. We know that gastrostaxis most often occurs in young women, that cirrhosis of the liver is commonest at the ages of 20 to 50 years, and that fatal phthisis is most often met with in young adults, so that as the age of these hæmorrhages corresponds roughly with that of menstruation, and, owing to the large number of cases of gastrostaxis, the total number of such hæmorrhages is greater in women than men, the error arose of considering them to be due to vicarious menstruation. But we cannot claim that in 1920 we have escaped the sin of erroneous deduction. Another instance in which morbid anatomy has thrown light upon what was to our ancestors obscurity is the discovery that by far the most frequent cause of hydrocephalus is tuberculous meningitis. Several cases of what were undoubtedly examples of this disease are recorded in the early Memoirs of this society. In some a post-mortem examination was made; but although, from the description given, it is clear that tuberculous meningitis was present, neither the meningitis nor the tubercles were recognised. Even when I was a student an examination paper asked the candidate to describe a case of acute hydrocephalus, meaning thereby tuberculous meningitis. Mercury was looked upon as the most likely drug to cure this disease. Cases of recovery after its administration are given; it still appears occasionally to be of benefit, and we know that a few cases of tuberculous meningitis may get well. It is not, however, fair to discuss pathology as known at the end of the eighteenth century. Post-mortem examinations were not performed systematically, only a few enthusiasts made them. There were no microscopes, bacteriology and clinical chemistry were unknown, and John Hunter had only just begun his publications, which are the beginning of experimental medicine.

ERRORS OF DIAGNOSIS.

The most common mistakes in diagnosis lay in the domain of nervous diseases. Many cases obviously hysterical are described, but it is not recognised that the disease is hysterical; for example, Dr. Hutchisson records "a case of tetanus treated by electricity."

The patient, a young girl, 16 years old, had no wound, she suffered from lumps in her throat, she woke up one morning with lockjaw, which was cured by electric shocks. The case is given of a girl, aged 12, who had opisthotonos and spasticity of other muscles; she got quite well, but it is not suggested that she was suffering from hysteria, nor that aphonia cured by electricity was hysterical.

Sometimes then, as now, malingering was unrecognised.

The extraordinary case is given of a young woman who vomited urine, passed it from the navel and from the anus; at times it contained gravel. A post-mortem examination was held and nothing abnormal was found except some suppuration in connexion with the uterus; nevertheless, the author does not suspect malingering.

But in defence of our forefathers it must be remembered that the physiology of the nervous system was very elementary, that morbid anatomy as a science had not arisen, and that even now hysterical and organic diseases are frequently confounded.

THEIR POWERS OF OBSERVATION.

Having briefly glanced at the errors of the first members of this society let me now give a few examples to illustrate that physicians and surgeons between 1775 and 1800 were, as far as their knowledge allowed them, no way inferior to us. That their powers of observation of the nervous system were good is shown by a paper in the second volume of our Memoirs, "Observations on the Palsy," by William Falconer.

He notices that sometimes the affected muscles are wasted, sometimes they are not; that paralysed limbs are usually flexed; that movements requiring nicety—e.g., writing—are more affected than those that are grosser. Most paralytic complaints that he had seen were hemiplegias or "palsies of half the body in a longitudinal direction." It is curious that he doubts the existence of what we call para-

plegia, and he considers that when both lower extremities are paralysed the cause is "rheumatism and other complaints." He recognises that plethoric persons are specially liable to apoplexy, but he does not show that he knew this to be due to cerebral hæmorrhage. He knows of palsy due to lead, arsenic, and mercury.

For wise advice upon the treatment of œsophageal stricture we can improve but little upon that given by James Johnstone in 1787.

He remarks upon the uselessness of many of the recommended treatments and the folly and danger of forcing the stricture with a probe. He urges the passage of bougies, which should be discontinued if they do no good; the use of oily substances to help the passage of the bougie, fluid food and opium to relieve spasm. Another instance of judicious surgery is shown in the treatment of a man who fell from a scaffold and lit on his perineum. The urethra was ruptured, great quantities of blood and urine were extravasated into the scrotum, perineum, and parts around. Mr. Norris punctured the bladder per rectum; the patient got perfectly well. The author records the case because the operation was rarely done in this country and he thinks lives might be saved by it.

There is an admirably described case by Dr. Anthony Fothergill, who was called to see a man of 64 who had great difficulty of micturition.

Fothergill and those whom he called in consultation were at a loss for an explanation; accordingly he wrote to William Hunter who, in reply, after stating that the physician who sees the patient is the best to treat him, says this case appears to be one of enlarged prostate, and the way to discover this is to examine the rectum, and that for treatment a flexible catheter is what is wanted. The patient refused to have a catheter passed. He died, and a full description is given of the enlarged prostate, dilated bladder, and ureters. Fothergill discusses the case excellently, and the advisability of puncture of the bladder by the rectum, if a catheter cannot be introduced, is considered.

There is a paper by Jonathan Watken, in which he insists that accurate diagnosis is fundamental; what he says is as worth reading to-day as in 1771. His cases are admirable; incidentally he describes tuberculous ulceration of the larynx "a mortal disease which I do not find described in any writings that have occurred in my reading." He concludes thus:—

"What enables us to form a just diagnosis renders us capable of giving a right prognosis, whilst both are equally necessary to make us honourable as well as successful in our profession."

The use of hyoscine for asylum patients is foreshadowed by Dr. Fothergill, who used the perfectly fresh extract with great success. It is interesting to note that "at the lunar periods the symptoms generally increased" and that venesection "was performed a little before the full moon." Dr. John Aikin gives a vivid description of a very severe case of purpura hæmorrhagica, although he does not so name it. The patient recovered. He records it because he says that authors have not hitherto taken proper notice of such cases, and have incorrectly placed them under the head of febrile diseases. But this, he says, cannot be correct because there is no fever, nor is it correct to ascribe the condition to a debilitated state, for this follows the purpura.

As during the late war the treatment of dysentery by ipecacuanha was so much before us it is interesting to find accounts of it in our early Memoirs.

In 1768 Captain Cardin relates how on the West Coast of Africa he had never once been disappointed by it. He gave 4 gr. of the powder with laudanum, and continued the drug till the patient was cured. Dr. Balmain, practising in Norfolk Island, also used powdered ipecacuanha with opium and obtained excellent results. We know guaiacum resin to be a powerful diuretic in certain cases of dropsy, but as long ago as 1789 Mr. Chamberlaine, of Jamaica, recorded cases showing its usefulness. There are several papers on digitalis which was employed, often with great success, as a diuretic; sometimes it failed, but that is the case to-day, and some of the failures were probably due to the administration of too large a dose. It was also used as a depressant, but then a very considerable quantity was given, and William Currie ranks it among the sedative poisons, using it in mania and hæmorrhage; it acted, with "pretty full doses" repeated "so as to produce languor, faintness, and considerable irregularity of the pulse," as a severe cardiac depressant, and thus secondarily as a depressant of the nervous system. It will be recollected that it is even now sometimes recommended for delirium tremens. There is an admirable "History of a case of croup termi-

nated fatally, with a dissection and incidental remarks," by Henry Field. The case is clearly one of diphtheria. He says it is commonly believed not to be contagious, but he doubts this; he urges that bleeding is harmful, that death takes place from suffocation by the membrane, that the trachea should be opened, and that tartar emetic may be a useful drug. Until the discovery of antitoxin we could not better this.

That the importance of industrial diseases was appreciated is shown in a paper dated 1799, entitled "Some Account of a Species of Phthisis Pulmonalis Peculiar to Persons Employed in Pointing Needles in the Needle Manufacture," by James Johnstone. He tells us how fatal this occupation is because the dust produced by grinding the needles on a stone enters the lungs, and he makes the reasonable suggestion that workers should wear a mask, and that they should not be allowed to cool the heated needles with their saliva, but should be given water for this.

In these times long ago we get a hint of antiseptics, for on more than one occasion it was stated that a poultice made from beer grounds was most efficacious, making us wonder whether this was due to the antiseptic properties of the alcohol, and in 1795 we have a suggestion of the same property of mercury salts, for Mr. Davies relates a curious circumstance. Two subjects were brought into the dissecting-room. On the second day one had become putrid and was covered with maggots. The other adjacent to it was avoided by flies. This patient had been heavily treated with mercury for syphilis. Was, asks Mr. Davies, this the reason why the flies avoided the body?

The descriptions of cases often contain a more personal reference than is now usual; thus at the end of an account of the passage of large biliary calculus per rectum we are told that the patient "happily returned to his family, which he left, consisting of 12 children and an associate still more dear." In the relation of a case of aneurysm it is stated that the patient was "kitchen gardener to a noble duke no less conspicuous for humanity, benevolence, and other virtues than his exalted station."

Before leaving this part of our subject we may observe some curiosities.

It appears from a paper by Dr. Lettsom, entitled "Of a Disease Succeeding the Transplanting of Teeth," that it was by no means infrequent to remove a tooth from an apparently healthy person, wash it in warm water, and to immediately insert it into the socket of another person from whom a bad tooth had been removed; in this paper several resulting cases of syphilis are recorded. One doctor gave to his patient 2 lb. of common salt dissolved in 2 quarts of water within the space of one hour; great oppression of the stomach, vomiting, purging, sweating, rawness, and soreness of the alimentary canal, thirst, and strangury ensued, "but these distressing symptoms were of short continuance." Dr. Hubbard relates a case of a patient struck by lightning, in whom the application of nettles to the whole surface of the body restored animation, which had been suspended at least an hour. The last I will mention is that one doctor had a patient who passed two guineas per rectum.

EARLY TOPICS OF INTEREST.

The final part of my subject is to indicate to you the matters which mostly interested the profession from the foundation of this Society to 1799. Vaccination hardly comes in, for Jenner's first publication on the subject was not made till June, 1798, and he could not get anyone in London to allow himself to be vaccinated until Mr. Cline performed the operation on some patients. This aroused interest in the subject at the united Hospitals of Guy's and St. Thomas's, with the result that Jenner gave an account of his discovery at a meeting of the Physical Society of Guy's Hospital in 1802. He himself attended on four successive evenings. A full account is given in Bacon's life. Hydrophobia, tetanus, influenza, and typhus were the diseases which occupy perhaps the largest space of any four in the earlier numbers of our Memoirs. The first five volumes contain ten papers on *hydrophobia*, and it was frequently discussed at the Physical Society. It was a terrible scourge, happily now stamped out in man in this country by muzzling, which we owe to Mr. Long. Those who, like myself, have seen human cases know that there is no more awful disease, none with greater suffering, none more appalling to witness. As an old writer says, "Fancy cannot paint a more distressing scene." I find this recorded in 1795.

A young man, married a few days before, was during the night seized with a paroxysm of hydrophobia. He tore open the abdomen of his wife with his teeth. Both were found dead, he with the intestines of his dead wife around his bloody arms. Very occasionally those afflicted recovered,

and several authors recognised that the best hope lay in immediate destruction of the wound either by complete excision or by the application of some strong destructive. Thus, Dr. Johnstone says: "I apprehend the surest preventive is to cut away or scarify the bitten part immediately, and to destroy it by caustic or actual cautery." Mercury or antimony were applied to the wound, and, if they did any good, no doubt acted as antiseptics. Dr. White, of St. Edmundsbury, in 1792 stated that his part of the country had been terribly infested with mad dogs. He records that a foal was bitten on the nostril by a mad dog. He excised the wound and five months after the animal was quite well, although a horse, a cow, and two pigs bitten by the same dog on the same day had all died. They were treated by internal remedies; excision was not attempted. He records ten cases in human beings, in all of whom the bitten part was wholly removed. Thus, in one case the bitten finger was amputated. He is "in hopes from the interval that has elapsed that they are freed from danger." "Two persons on whom excision and ablation had not been performed, and to whom medicines of false repute had been given, fell victims to their credulity." He considers that the virus may be exterminated by excision many days after the injury. Dr. Dexter says the following plan is found in New England to be most successful: "Immediately after the accident the part is well washed in warm water saturated with common salt, then scarified and cupped, and 1 to 2 drachms of strong mercurial is rubbed into the wound and the adjacent parts; this is continued for 25 or 30 days if signs of mercurial poisoning do not supervene."

The perusal of all these papers leaves the reader with a strong impression that excision of the wounded parts or their destruction was the most approved treatment. The earlier this was done the better, and a case is given in which death ensued, although excision was performed and caustic was applied four days after the bite; nevertheless, the opinion was that it was always worth while trying this plan any time after the bite before the symptoms of hydrophobia appeared, for, as is well known, this may not be until many months later. In one of the cases here recorded it was nine months. You will, I know, agree with me that, considering the state of knowledge then, most hope lay in excision or destruction of the wound and strong antiseptics, as advocated by the majority of writers at the time. Giving an oil bath, or inunction with or drinking oil was advised by a few. Domestic animals—e.g., horses, cows, and pigs—were frequently afflicted with the disease after being bitten by a mad dog. Dr. Shadwell says he was told that a pig thus affected leapt 12 feet in the air, but he does not believe this.

Tetanus, Influenza, Typhus.

Tetanus occupies a considerable space in the first five volumes of our Memoirs. Excision of the wound before the symptoms appeared was not practised, because, unlike hydrophobia, there was nothing in the mode of infliction to show that tetanus is likely to follow. The disease could only be treated after its appearance, and the treatment was as good as could be adopted, its object being to relieve the spasms. Hence enormous quantities of opium were given.

For example, one sufferer had 2 gr. of opium every hour and later 5½ fl. oz. of landanum in 26 hours. Alcohol was given for the same purpose; thus, a man who got well had from 60 to 120 drops of tincture of opium every night, and he also had 110 bottles of port in 42 days. In spite of this quantity he never had "any symptom of ebriety; it soothed the irritation of his nerves and comforted his mind, and without increasing the frequency of his pulse it augmented his strength." James Currie and others advised the cold bath. A man suffering from traumatic tetanus was thrown into the public salt-water bath at Liverpool, the temperature of which was 36° F. The good effects in this case were instantaneous. These baths were repeated for 14 days and the patient got quite well. Other cases treated in the same way are recorded, and we find that a horse was treated by being thrown into a river, and another by having cold water poured over him. But as our present experience would lead us to expect, treatment usually failed.

Influenza came in epidemics, and was the cause of much illness.

Dr. Fothergill states that in November, 1775, "it began to make its appearance at Northampton, and soon became more general than any other epidemic within my remembrance." Horses suffered; it ran through whole packs of hounds. He was quite unable to explain its coming. Another

epidemic occurred in 1782. Altogether in that century there were epidemics in 1709, 1733, 1743, 1762, 1767, 1775, and 1782. From the descriptions given the symptoms were much the same as we know; perhaps sore-throat and cough were even more common; cough was very constant and very severe. Collective investigation is by no means new. Such was the seriousness of influenza that in 1803 this Society sent a list of 32 questions about influenza to each of its corresponding members. Fifty-eight answered, and their replies occupy more than 300 pages of our Memoirs. The Government attached so much value to this investigation that they franked all the replies.

Typhus was then common. Jenner had it. Lettsom was called to see Lord George Gordon in Newgate on Oct. 25th, 1793. He died from typhus. Other prisoners died and the doctor to the prison caught it. Lettsom, in a paper on Newgate prison, gives excellent advice as to the best way of preventing typhus in gaols.

The reading of these ancient volumes was undertaken in order that by actual extracts from them I might carry you back to the time at which the societies were founded. If I have succeeded and you have reached the same conclusion as myself it will appear to you that in actual knowledge we are far in front of our forefathers who lived 120 or more years ago, but that in enthusiasm for learning all that lies in our power to know about medicine and surgery, in scientific attitude of mind, in careful observation, in wisdom and in sound judgment, they were fully as capable as we are, and that if we, present members of the Medical Society, use our much greater knowledge as well as our earliest members used theirs, we shall be doing well.

EXTRAPLEURAL THORACOPLASTY IN THE TREATMENT OF PULMONARY TUBERCULOSIS,

WITH AN ACCOUNT OF 37 CASES.

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THE theory underlying the operative treatment of tuberculosis of the lungs is in close connexion with the conception that certain mechanical factors facilitate the development of pulmonary tuberculosis or present obstacles to its cure. It is now almost two generations since W. A. Freund put forward his well-known hypothesis in explanation of the predisposition of the apex of the lungs to tuberculosis.

He considered that the cause was to be found in the rigidity of the first rib, which to some extent constricts the apex of the lung. As in addition the first costal cartilage is often found to be calcified in cases of pulmonary tuberculosis, the range of movement of the first rib is still further restricted in these cases. In Freund's opinion both these factors occasion reduced mobility of the apex of the lungs, and thereby diminished activity in this region. Following this hypothesis a resection of the cartilage of the first rib in cases of apical tuberculosis was at one time suggested. This proposal, however, has rarely been put into practice. The object of such an operation must either be prophylactic or curative in early cases of pulmonary tuberculosis. In the former case it would be impossible to lay down serviceable indications for the operation, and the latter class consists of patients who often recover without operation, operative treatment, therefore, not being indicated. An additional argument against this operation is that its essential object, the production of greater mobility in the apices of the lungs, conflicts with the generally accepted principle for the treatment of tuberculosis by immobilisation.

There was a better foundation for the proposal, put forward by H. Quincke in 1888, to remove the rib covering a cavity in the lung, for Quincke started from the correct supposition that it is mainly the rigid chest wall that prevents the walls of a cavity from collapsing on the contraction of the fibrous tissue formed in the lung. Quincke's proposal did not meet with the support one might have expected for it; C. Spengler alone took up the idea, but he employed the method solely in cases with coincident pleural exudation. It was not until 1903 that he performed the operation to which he gave the name extrapleural thoracoplasty.

K. Turban may be said to have been the first to remove any considerable section of ribs in unilateral pulmonary tuberculosis. In 1899 he removed 64.5 cm. of ribs from the fourth to the tenth. In 1902 Landerer published no less than nine similar cases. However, the operation did not win other advocates as the results were not good. It was not until experiences of pneumothorax treatment had shown that it was not only essential to get the lung partially collapsed, but that it must be put completely out of action, that in 1907 it occurred to L. Brauer, at that time professor of medicine at Marburg, that a large part of the ribs must be removed if both the above objects were to be achieved. In December of the same year, on Brauer's initiative, P. L. Friedrich performed his first great thoracoplasty, employing M. Schede's large arc-shaped incision for old empyema. At first Friedrich aimed at removing the intercostal muscles and periosteum as well as the bone, but this