a good sample of how descriptive and entertaining he could write in this line.

Profound scholarship, gifted attainments in scientific and professional pursuits, are often marred in their application to our daily life and wants by personal characteristics which repel rather than attract.

Banks, whether at work or at leisure, was a *persona grata*. He drew persons to him by an attraction of his own. Nor did this feature always take the form of the "*facilis in modo*"; there was plenty of the "*fortiter in re*" in reserve, if necessary, for emergencies, or when applied for the advantage of those opinions or persons whose cause he befriended. Like other persons, he was not always right, and then it was difficult to convince him he was wrong. But whether right or wrong he always respected an honest resister.

He had the courage of his convictions, and as age advanced this characteristic was not infrequently publicly avowed. "Were I a younger man," he remarked, in a professional address, "I would not dare to say this."

Of his many distinctions, the one which appeared to give him the greatest satisfaction and pleasure was the LL.D. of his old university—a pleasure which was only equalled by that of his numerous friends when our late most beloved and gracious Queen Victoria conferred upon him the well-deserved honour of knighthood. He was the first member of the medical profession in Liverpool to receive this distinction.

Permit me to take this opportunity to offer my hearty congratulations to the President of the Liverpool Medical Institution (Sir James Barr) on being the second recipient of this honour.

I will bring my address to a close in the appropriate words of the first calendar as then applied to what is now the University of Liverpool. May it continue to prove "a centre of culture, sound learning, and good fellowship."

An Address

ON

MODERN FASHIONS IN SURGERY.

Delivered before the Cardiff Medical Society.

By J. LYNN THOMAS, O.B., F.R.C.S.ENG.,

President of the Society; Surgeon, Cardiff Infirmary.

AFTER thanking the Society for having done him the honour of electing him to the office of President, Mr. Lynn Thomas continued as follows: In these days of rapid progress it is necessary from time to time to slow the pace and to follow Benan's advice "to sit down for a while to rest by the wayside of the Via Sacra, in order to reflect on the vanity of received opinions." Since Lord Lister appeared as the apostle of the true gospel of modern surgery, his disciples all over the world have from time to time modified, altered, or completely changed the ritual which he introduced in the treatment of wounds. My reasons for choosing this subject are that I am the first who confined himself to the practice of surgery in Wales, and was appointed one of the Assistant Surgeons to our infirmary, when surgery was separated from medicine at that institution some ten and a half years ago. It is interesting to recall the conditions which existed at our hospital regarding the status of the surgeon anterior to 1895. In the first place, a medical man was appointed by the governors to the post, which went under the name of "out-patient medical officer," and his duties had no limitations as far as the out-patients were concerned, except that he did not treat diseases of the eye, but he hardly ever had anything to do with in-patients until a vacancy took place through death or resignation of a physician, and on that day he suddenly found himself raised to the post of "surgeon," with charge of beds, and was thus made suddenly responsible for major operations without having previously had any facilities or opportunities of doing such work! At the same time as the out-patient medical officer was made "full surgeon" the senior surgeon resigned his post in order to be promoted to that of "physician," the highest dignity the hospital authorities could confer upon him.

The above regulations appear extremely absurd to many of us, but it is a notable example of the conservatism of human nature in hanging on to old traditions respecting the status of members within our ranks who were formerly known to the laity as apothecaries, surgeon-apothecaries, barber-surgeons,

surgeons, and physicians. We feel thankful that the funeral rites of this mediaeval custom have been duly performed at the Infirmary, but we must be careful in practice to remember that a sound knowledge of medicine is still absolutely essential to the art of good surgery. Before dealing with modern surgical fashions in civilized countries I would draw your attention for a moment to the present condition of surgery in Tibet. It is only just a little over a year ago that the veil was torn off the face of that forbidden land, and thanks to the graphic account in the fascinating book *Lhasa and its Mysteries*, by Dr. Waddell, of the Indian Medical Service, we gather that the Temple of Medicine in Lhasa is a very imposing edifice built on the top of a high and steep rocky spur, the "Iron Hill," in close proximity to and connected by a ridge to another crag, on which rests the holy palace of the Dalai Lama, the pontiff of the Tibetan priests. Alas! we are disappointed to find that we cannot with advantage take a hint from Tibetan surgery, for the Lama physicians belong to a class of wise men or "Gwyddoniaid," resembling those who dominated the healing art in Wales about 3,000 years ago, as we have it on the authority of *Meddygon Myddvai* (published by the Welsh MSS. Society in 1861) that medicine was practised by the "Ancient Cymry before they became possessed of cities and a sovereignty which is generally dated about a thousand years anterior to the Christian era."

The Tibetan surgical instruments are practically confined to the actual canter, bleeding lancet, and a cupping horn, and "its priests are seldom paid more than five pence a day for reading litanies and offering sacrifice to the devils of disease."

I shall not pursue this very interesting topic any further than to remark that it is surprising to find that the great men of our profession in this country not so long ago believed that a thorough knowledge of astrology and astronomy was essential to guide them through the perplexing mysteries of their calling; and to-day perhaps it is startling news to many a young surgeon to read that a well-known barber-surgeon made a thousand a year by phlebotomy only a little over a century ago! Notwithstanding the fact that the modern physician no longer carries his cane and that the modern surgeon has thrown off for ever the clothes of the mystic and the barber, still we find that fashions in surgery have undergone extraordinary changes since the time I became a student some twenty-five years ago. At that time the surgeon who was engaged at an operation was dressed in mackintosh sheeting that would withstand the purifying action of some strong antiseptic lotion, and was extremely proud of his carefully-selected sponges, and very careful in deputing some reliable person to take charge of the carbolic spray. What a change! To-day he is dressed in white garments, like the Essenes or Therapeutae of old, and never hears the mystic hiss of the carbolic spray, nor revels in a hunt for splendid sponges in the latest consignment from abroad. I have here a sketch (Fig. 2), which is intended to illustrate some of the points which characterize the surgeon at the beginning of the twentieth century. Perhaps before the end of this century a future President of this Society will be able to entertain his listeners with this sketch as evidence of the extravagances of fashion of the operating surgeon of the present day. However, I must not anticipate what may never take place, but must confine myself to the views which now guide us in our practice. The surgeon of the latter part of the nineteenth century took part in a peaceful revolution against the prevailing government of antiseptics, and substituted in its place a republic of asepsis which does not possess any elements that might contaminate or poison the constitution of patient and operator. On the right side of the sketch is shown a useful method by which the surgeon takes off his vest and shirt sleeves, instead of turning them up; it serves the double purpose of preventing a possible infection of the patient and of adding to the comfort and cleanliness of the operator.

Overall.

The sterilized overall is made long enough to prevent the surgeon's hands from coming in contact with his nether garments, which are under suspicion of being surgically unclean. The sleeves are long enough to cover the forearm down to the wrist. The overall possesses a bib with which the surgeon himself can cover his mouth and nostrils by slipping the tapes round the ears and tying them under the chin. I saw it in use by Dr. Le Dentu when I was on the *Centente médicale* visit to Paris last summer. I consider it a more suitable appliance for protecting the mouth than the operating cap of the Nansen type, because it can be easily put on or taken off without interfering with the cap. The bib is

necessary for a surgeon who has a long, flowing beard, or has a cold, and also to those who cannot keep their mouths closed during operations, or who perspire freely.

Cap.

A sterilized cap is essential for surgeons who wear long hair, or are short-sighted, or who go in for motoring, for all these conditions contribute to the accumulation of and to the disturbance of organisms from hair during operations. When two surgeons, after a motor ride, brush their hairy heads against each other over an operation, one can see with the naked eye a fall of suspicious dust. The loop on the cap is made for the purpose of allowing the surgeon to shift or take off his cap without infecting his hand; the inside of the cap in that situation has an extra lining to give it additional safety.

Fig. 1.

Gloves.

A surgeon, in order to be *de rigueur* should wear gloves. One must never forget that the surface and the superficial layers of human skin are looked upon as the high veldt for sheltering organisms, and that the surgeon's hands enjoy a most evil reputation for introducing these undesirable aliens into harmless wounds, hence various methods have been introduced in order to remove, kill, or imprison them before and during operations. It is not necessary for me to recall the many antiseptics which have enjoyed the passing reputation of a *Mithridaticum* or *Theriaca* as reliable antidotes. The introduction of gloves has done away with the necessity of painting the hands and forearms mahogany colour and of bleaching them with nascent sulphurous acid. The simplification of the ritual of surgery should always be kept in view and the rational washing of hands in falling water together with the policy of protection are steps in the direction of

fulfilling the principle that prevention is the best cure. The fashion of wearing particular types of gloves varies with the mental attitude of the operator; some maintain that impermeable rubber gloves should be worn on all occasions, whilst others are convinced by long experience that rubber gloves need be used only in septic or dirty cases, and that permeable thread gloves are sufficient protection against a successful invasion by organisms of the field of operation in aseptic or clean cases. I published a paper in 1899 advocating the latter fashion in wearing of gloves; so far I have had no reason to change those views because the results of this operative method are satisfactory as far as the disappearance of septic complications are concerned. The use of thread gloves on the hands of a surgeon who does not take the strictest precautions against infecting his own fingers would be dangerous, because a highly-infected forefinger would be like a snake in the grass inside a permeable glove. A surgeon should always protect himself against personal contamination during the examination of patients. Cavities like the rectum should never be examined without a suitable rubber protector on the fingers, the ordinary finger-stalls sold by instrument makers are not suitable because they fit too tightly, are too short, and interfere with the sense of touch, they should be made longer and more roomy or baggy, so that one or two fingers can be moved easily within them without any hindrance. I need hardly state

Fig. 2.

that a surgeon who pushes his fingers into suppurating cavities, or palpates an erysipelatous surface without any intervening protective medium, should invariably wear rubber gloves at operations. He who constantly adopts necessary precautions which his own habits demands gets the best results in his operative results. Whenever a clean operation wound suppurates the surgeon should put his house in order. Dr. Schölberg has very kindly on several occasions made for me bacteriological investigations of thread gloves used in aseptic operations, and in most cases the result was satisfactory from the bacteriological standpoint, but on some occasions a stray staphylococcus grew from a fragment of the glove, but it made no difference from the practical standpoint, as primary union of the wound took place. A few staphylococci may apparently only cause the rapid concentration of microphages of sufficient force to overwhelm the invaders; perhaps it would require a whole army corps in the field of operation before dangerous infection takes place. The free ends of finger nails, which are looked upon as adornments in civilized countries, have come in for the modern surgeon's special denunciation and condemnation, but the appearance of nails cut to the quick with discoloured "back friends" is a positive reflection upon his aesthetic sense. The wearing of gloves during operations allows the surgeon to keep his hands in such a condition that it would require more than a veritable Zadig to guess his calling from an examination of the tell-tales of manual occupations.

Modern Operation Theatres and Appliances.

The first time I saw scientific aseptic surgery carried out was at the clinic of the late Professor Axel Iversen at Copenhagen in 1892. The theatre had good light, rounded corners, and no ledges for the deposition of dust. Boiling and boiled water were used for sterilization before and during operation. The roof, walls, and floor of the room were washed down with a hose after each operation. The theatre was heated by means of a large polished metal cylinder, the interior of

which was connected with the heating apparatus beneath the floor. Every person who entered the operating theatre had to take off his coat and wear a sterilized one, and also had to wear big rubber boots in order to complete the precaution against the introduction of stray pathogenic organisms into the operating room. Lastly, we were incarcerated for a few minutes between two doors in the wall of the operation theatre whilst a current of sterilized air was passed over us. By taking all the above precautions Professor Iversen was able to prove that the gospel of surgical cleanliness could be observed without the use of antiseptics in clean operations. Modern operating theatres in our public hospitals are built in such an expensive fashion that it is not possible for the middle and upper classes to get their operations done under such palatial surroundings. A hundred and fifty years ago it was only the well-to-do who could command the services of a medical man; to-day it is only the poor and the working man who gets the best places in which modern operations can be performed according to present-day ideals. The fallacy of these high ideals is shown by the result of operations in private houses.

Some years ago, whilst gleanings information and hints from hospitals at home and abroad before the erection of our new aseptic operation room in Cardiff, I was much impressed with the extraordinary varieties of basins and taps that were in use for surgeons to wash their hands in. It would be waste of time to describe the devices which I saw in use for preventing the surgeon soiling his hands after washing them in water. In one place a nurse was told off to turn on and off the hot and cold water taps, in other places three levers were worked by foot in order to avoid being shadowed by a nurse, but yet one could not get tepid running or falling water to wash in, and had to be content with stagnant water in a basin. Some taps had handles which were "manipulated" by the leg, or the knee, or the elbow, and one had two separate crutch-shaped levers for the hot and the cold supply, and were controlled by the front of the biceps region being placed in the crutch! In the bewilderment and complicity of the above appliances for washing we fell back upon the shampooing taps of our ancient associates—the barbers—and had them fitted over a basin at such a distance that one can wash his hands and forearms in running or falling water at any temperature desired. The single handle of the shampooing tap is turned off by the surgeon himself by using the sterilized ebonite shield which is kept in $\frac{1}{2}$ carbolic lotion. Washing in falling water is so important and still so rarely seen in practice that I think our simple mechanical device is worthy of record. (Fig. 3).

Fig. 3.

There are other fashions in the manufacture of surgical appliances which are of little importance were it not for the inconvenience and the unnecessary expense that we are subjected to by their adoption. When I started practice every instrument was made with a "take off" joint, a fixed joint being considered unorthodox and "old-fashioned" like the old unwashed operating coat, but it was not long before one experienced that one half of the instrument got astray during critical moments, and the blessings of the surgeon took the practical form of going back to the ancient screw joints that he could depend upon.

Lastly, I will just refer to the superstition that grew up a few years ago against wood being used as material for operating tables. Every operation theatre that had a wooden table in it was at once a fitting theme for the jeers, jibes, and sneers of the up-to-date surgeon whose new instincts demanded glass, iron, steel or some new alloy that theoretically lent itself to the chase and death of the ubiquitous germ! Still plain wooden tables answer the purpose as well, if not better, than those of the more expensive fashionable forms, because in this country, and any other country that I know of,

the patient's naked back and the table's top are never in immediate contact and are not sterilized for a condition which patients would not tolerate for a single moment. Wood is a non-conductor and is relatively comfortable for contact with the naked skin, whilst metal is a good conductor, is difficult to keep clean and warm, and soon chills those who are unfortunate enough to have to lie on it; the myth of their "superior asepticity" over wood is upset by the very practical fact that during operations some warm non-conducting porous material is placed under patients. Surgeons who disbelieve in the efficacy of thread gloves often depend upon the efficiency of sterilized towels being placed under or over garments worn by patients; seemingly they are not frightened by the possible stealthy creeping of a wandering microbe through towels from tables or parts of the body other than the hands.

I believe that the present desire of surgeons is towards the simplification of the ritual of the gospel of cleanliness and to the adoption of sensible methods which can be observed in places other than the modern palatial halls of our public hospitals.

REMARKS ON THE VALUE OF THE SIGMOIDOSCOPE IN THE DIAGNOSIS BETWEEN PRIMARY AND SECONDARY COLITIS.

By P. LOCKHART MUMMERY, B.C., F.R.C.S.,
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Hospital for Diseases of the Rectum, etc.

At the present time, when the subject of colitis is receiving considerable attention from both surgeons and physicians, it is not, I think, out of place to draw attention to some of the more important points in the diagnosis of this condition. It has often seemed to me that colitis is not infrequently labelled as a disease in cases where it is merely a symptom. Thus, cases where there is chronic diarrhoea or frequent discharge of mucus with the faeces, and even cases where there is little more than some undue looseness of the stools, are often called colitis, and treated for that condition without any further evidence than that afforded by the symptoms, and perhaps a digital examination of the rectum.

In these days when we are beginning to recognize the paramount importance of diagnosing and treating disease in its earliest stages, it is most necessary that in all cases where such symptoms are present a most careful examination should be made before treating the case as one of colitis.

In addition to the information obtained from an examination of the stools, which should, whenever possible, be supplemented by a report on the chemical and microscopical characters, the diagnosis rests upon (1) an examination of the abdomen, (2) an examination of the bowel.

EXAMINATION OF THE ABDOMEN.

This may result in the detection of some abdominal condition to which the colitis is secondary, or at least accessory. Such conditions, for instance, as a chronically inflamed or thickened appendix, which though it may not have given rise to a definite attack of appendicitis, may yet be the cause of the colitis. Or a freely movable kidney may be discovered which, by pressing or dragging upon the colon, may be the chief factor in the production of the colitis. The hard rope-like feeling of the colon, as felt through the abdominal wall in some cases of colitis, is also an important diagnostic point in some cases, as it indicates an unduly irritable condition of that portion of the bowel.

THE LOCAL EXAMINATION OF THE BOWEL.

A careful digital or bimanual examination of the rectum should always be made in order to exclude any rectal cause for the symptoms, as there are several conditions of the rectum which may somewhat closely simulate colitis in symptomatology.

CASE I.

A gentleman, aged about 50, had for some time suffered from some looseness of the bowels and a feeling of discomfort in the anus. He said that he had a feeling as if the bowel had not been emptied, and a constant feeling of weight in the part. He was thought to be suffering from cancer of the bowel. A careful examination, however, excluded the presence of any growth in the rectum or pelvic colon, and led to the discovery of a much-hypertrophied anal papilla, which was undoubtedly the cause of his symptoms.

It is now possible by means of the electric sigmoidoscope to examine the whole of the rectum and the greater part of