the States of America, whence he has sent me stereoscopic views of his countenance, which would seem to retain wonderfully little trace of its remarkable history, as will appear from the copy here presented.

This case, which may be regarded as a transition step from the old to the new system of treatment, was soon followed by numerous operations of a similar kind, which naturally suggested an extension of the same procedure to tumours of the superior maxillary bone. The morbid growths in this situation are not different from those of the lower jaw, and have not proved more amenable to the old operation, as I can testify from the evidence of miserable cases still fresh in my memory. But the more complicated connections, the dread of hæmorrhage, and the painful feeling excited by a foolish attempt which proved fatal from the preposterous preliminary of tying both carotid arteries, offered such obstacles to the operation, that it was not accomplished until May 15th, 1829, when I performed it in the Edinburgh Surgical Hospital. This was the first case in Great Britain, and is the earliest on surgical record, as M. Gensoul of Lyons did not publish his observations until the following year. Since that time, the operation has, here and elsewhere, been performed very frequently, and with almost invariable success, except when undertaken in improper cases through an error of diagnosis. Within the last few months, I have operated once in private, and three times in the hospital, with the most satisfactory results; and only a few days ago, I heard from an old pupil, Dr. Sutherland of the Royal Artillery, stationed at Benares, that he has operated lately with every prospect of success upon a young native in that neighbourhood for a tumour of the upper jaw, which, from the stereoscopic view sent to me, must have been of enormous size.

It will be obvious that the case which has led to these remarks was merely an application, under peculiar circumstances, of the same principle that has produced such great improvements in the practice of surgery.

Lecture

INTRODUCTORY TO THE COURSE OF LECTURES
ON THE

ANATOMY OF THE LIVER:

WITH
OBSERVATIONS ON CERTAIN CHANGES
OCCURRING IN DISEASE.

Delivered at the Royal College of Physicians.

BY

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*The Influence exerted by Scientific Inquiries, and
especially by Minute Anatomy, on the Progress of
Medicine.*

[Concluded from page 377.]

MINUTE anatomical investigation, as well as certain departments of physics and chemistry, has, therefore, a very important bearing, not merely as regards the nature of the changes which are taking place, but also upon the diagnosis and treatment of disease.

Besides all this, there naturally exists in everyone who loves his profession, an earnest desire to know how each organ is developed; the nature of the changes which occur while it grows and after it has arrived at maturity; the alterations which take place in its structure as it grows old; and the modifications which may occur if the normal conditions under which it lives be altered.

Few organs of the body are of greater interest, when studied from this point of view, than the liver. Developed at a very early period of life—in active operation long before many of the higher tissues bear the impress of their specific character, or commence the work they are destined to perform—the largest gland in the organisms of the higher animals as well as one of the most constant secreting organs in the animal series—placed as a sentinel at a point which the blood, enriched with new substances, recently introduced into the system, must pass before it commingles with the mass of the fluid from which the tissues extract the compounds specially prepared for their support, the liver has always been regarded as a most important organ, anatomically and physiologically, and its structure and uses have, therefore, been carefully studied by successive generations of anatomists and physiologists. The emaciation which always results when its secretion is diverted from its proper course, or when its function is impaired by structural changes; the derangement in the general health which constantly results from slight disturbance in its action; the progressive failure of the health in chronic diseases of the organ; the rapid death which follows from acute affections, or from severe injuries; have necessarily led physicians in all ages to take the greatest interest in hepatic diseases; and the liver has been regarded as the seat of origin of many pathological actions, the nature of which has not been fully investigated.

Although of late the researches of Bernard and Pavy, and many other physiologists, have contributed greatly to elucidate some of the changes effected by

this organ; although its structure has probably been more studied than that of any other gland; and notwithstanding some of the most elaborate memoirs, as those of Budd, Frerichs, and others, have been written on diseases of the liver; yet how much remains to be discovered before we can give a clear account of the uses of this organ, of its intimate structure, and of the history of its development, or of the alterations which take place in disease. Anatomists are so divided in opinion as to its structure, that by some it is considered to be arranged essentially like other true glandular organs, while others regard the vertebrate liver as an organ closely related to the so-called vascular or closed glands, or glands without ducts. It has been stated that the cells of which the organ is mainly composed are, as it were, outside the ducts, and arguments have been brought forward for the purpose of proving that these cells are not directly concerned in the secretion of the bile. Frerichs has altogether omitted the ducts in the twenty-six plates of his *Atlas*, illustrating diseases of the liver. So long as these wide differences exist as to the mere structure of this important gland, we cannot expect to advance much in determining the nature of its pathological changes, or in the treatment of its diseases.

The liver has been a favourite study with many British anatomists, and the researches of Kiernan, Bowman, Handfield Jones, and others, have added many new facts to our knowledge of the structure of this organ.

One of the first complete treatises ever written upon the anatomy of the liver, was the well known *Anatomia Hepatis* of Francis Glisson, which was published in London in the year 1654.

Dr. Glisson was described by Boerhaave as "omnium anatomicorum exactissimus." He was one of those distinguished men who met weekly in London for the purpose of scientific investigation. It was these weekly meetings which gave rise to the formation of the Royal Society in the year 1660.

The learned author of our *Roll* tells us that Glisson "was one of the first of that group of English anatomists who, incited by the great example of Harvey, pursued their inquiries into the human structure, as it were, in concert, and with an ardour and success that has never been surpassed."

The biographies of men who have thus worked are always refreshing and pleasing, and very generally highly instructive and useful. We cannot but recall the fact with pleasure, that two hundred years ago Dr. Glisson gave some lectures at this College on one of his favourite subjects; and, when we consider the nature of the questions he discussed, we see with what ardour and enthusiasm abstruse inquiries were taken up in those days. At the time Dr. Glisson lectured on the liver, he was more than fifty years old, and had been investigating for thirty years the structure of this organ. There is, in truth, very much which we may try to imitate, and which we must admire, in the manner in which our forefathers worked. They steadily and continuously for many years pursued their inquiries, and often under great difficulties. They seem to have found leisure to think, as well as to work; and many spent a great portion of their lives in following out some special line of investigation. The manner in which they recount the results of their labours shows how much they loved their work.

Are we not now too anxious that every hour we spend in scientific work should be productive, and should be represented by certain definite results? Are we not much too careful of our labour? Are we not far too impatient to meet with real success in many investigations we attempt? There exists a very general impression that exact and minute observation, especially in such subjects as comparative anatomy, unfits a man for the study of disease, as if earnest work and earnest thought on kindred departments of natural knowledge could unfit a man for studying and reflecting upon some of the most complex phenomena which occur in the living world. Never was there a period in the history of medicine when the combined exertions of a number of energetic physicians seemed more needed than now. The results of such work must be great indeed, due freedom being permitted to each mind to inquire in its own individual manner. There is no country in which such advantages for the prosecution of scientific work in connexion with medicine exist as in our own. Many of the younger members of our profession have the time, and, what is of greater importance than the time, the will, to follow the example set by those distinguished men to whom we, as physicians and as Englishmen, owe so much. All that is required to make the scientific medical work of the nineteenth century keep pace with the increased advantages we possess, is the recognition of its importance, and faith in the ultimate usefulness of its results. Although a vast amount of scientific work bearing upon medicine is being carried out on the continent, it is, I fear, to some extent true, that we are working less zealously for medicine in this country in our day than our predecessors did in years gone by; and, when the enormous means at command are contrasted with the restrictions under which they laboured, the comparatively small results must be attributed to want of energy, want of taste, or a prejudice that such labour is either useless to science or not estimated in a country so practical and so wealthy as our own.

It seems to me that the impulse, the organisation, and the encouragement which those advanced in the profession alone can give, are only wanting to increase by many times the work carried out here. Scientific reports of valuable investigations bearing on medicine would soon emanate from every hospital. The example set by Guy's, in publishing hospital reports (*Guy's Hospital Reports*, edited by Samuel Wilks, M.D., and Alfred Poland), is well worthy of being followed; and the statistical report which has recently emanated from the sister institution shows what valuable information may be obtained from our large hospitals by earnest work on the part of those who have at heart the real interests of their profession. (*Statistical Report of Patients treated in St. Thomas's Hospital from the Year 1857 to 1860*, edited by W. H. Stone, M.B., Assistant-Physician to St. Thomas's Hospital.)

If scientific research in connexion with medical observation were encouraged, laboratories and work-rooms would soon spring up in our hospitals; the amount of work actually carried out would prove our earnestness, and increase public confidence in us. The great public bodies at the head of our profession would issue periodical reports, and our scientific labours would go forth to the world and testify that we are not less energetic in contributing our

share to the advance of knowledge than our countrymen engaged in investigating other branches of science.

Fear exists in the minds of many that the new views resulting from new observations will tend to make us bad practitioners, and will lead to the hasty introduction of new plans of treatment before the principles upon which they are supposed to rest have been firmly established by experience, and verified by repeated observation.

But if such results are to be apprehended, they will not be brought about by those who prosecute investigation with earnestness and conscientious care. Every one who has really attempted thoroughly to investigate any one point soon discovers how very difficult it is to convince himself that the conclusions at which he has arrived are true. He requires proof beyond proof before he can feel satisfied that his views are correct. Such a training must teach caution, and is far more likely to correct than to encourage that habit of careless and impatient observation and generalisation which lead a practitioner hastily to put in practice a new plan of treatment, or hastily to reject as useless a system which has been practically carried out and found efficient by his predecessors. A habit of accurate and minute observation will necessarily lead the practitioner to employ few remedies the action of which is well known and has been established by experience. The effects of these he would study as carefully as possible. In fact, the spirit of scientific research is thoroughly opposed to the alteration of any received views of practice, except upon the most conclusive evidence. Modern research must not be held responsible for the modern tendency to undervalue or to ignore recognised modes of treating disease. Those who prosecute scientific work in connexion with medicine are not responsible for the numerous preparations which are being perpetually forced into use, and shamelessly vaunted as valuable remedies for this or that disease. In many instances, there never has been at any time the slightest ground for supposing that many of these substances, the virtues of which are so extolled, possessed the properties they were reputed to have, and their uselessness is soon proved by experience; but as fast as one series is discarded, another takes its place. The scepticism of *all* treatment which is necessarily engendered by this very useless and capricious system has been by some wrongly attributed to the spirit of minute investigation which has so greatly increased during the last few years. True research would, on the other hand, necessarily create in the mind an anxiety to study closely and for a length of time the action of simple substances which are in ordinary use—for example, the action of acids or alkalies, and such simple bodies, in health and in various diseases.

I have ventured, sir, to allude to the relation of minute research to the progress of practical medicine, and have advocated the further prosecution of scientific inquiry by physicians, because I believe that the opinion which has been acted upon by many distinguished men, and which is still entertained, is strictly true; viz., that all progress in medicine really depends upon the prosecution of scientific research in connexion with disease. It seems to me that the increased facilities for investigation should call forth more work on our part.

The great activity now prevailing on the continent should excite in us a desire to bear our share of the labour. Medicine, like every other branch of natural knowledge, is continually progressing; and its true interests demand that we should maintain constant efforts to advance it. I have urged this as strongly as I can, because I believe that, unless we keep in view the importance of scientific investigation as well as the practical treatment of disease, we cease to follow the examples which have been set us by Harvey and Hunter, and other distinguished men, of whom we are so justly proud; and, unless the system of scientific inquiry so earnestly prosecuted by them be closely followed up by us, British medicine will no longer continue to occupy the high position to which our predecessors have raised it.

Original Communications.

RARE CASES IN MIDWIFERY.

By EDWARD COPEMAN, M.D., Physician to the Norfolk and Norwich Hospital.

[Continued from page 133.]

CASE X. *Repeated Difficulties and Narrow Escapes in Successive Confinements.* Mrs. — was confined on the 6th of December, 1854; and, with the exception of a little threatening of puerperal disturbance on the third or fourth day, had been going on quite well until the 23rd, when she was attacked with pain in the right lumbar and iliac regions without rigor, and difficulty in getting the bowels relieved. In the course of the day, the pain became worse, and she had enemata, calomel, and opium, etc., with but little benefit. After a while, however, she had a very large fecal evacuation; and the abdominal pain was relieved, in a measure, by turpentine stupes. But, on the evening of the 24th, there was still some tenderness in the body, not uterine, and the pulse became more frequent, from 84 to above 100; and early on the morning of the 25th, she had a fainting fit. The lochia had ceased before the present attack, and there seemed to be no uterine complication of any moment. At 10 A.M., on the 25th, I saw her, and found her with a pulse at 120, small, but not wiry; tongue furred and indented; no headache or delirium. There had been no vomiting. She had no abdominal pain when quite still, but a good deal of tenderness on pressure, both in the situation of the ascending and descending colon; scarcely any in the uterine region. The colon in its whole course was distended and tympanitic, so that its outline could be seen through the integuments. There was inability to pass urine; but a sufficient quantity was secreted, and of a good quality. Pulse 120. The countenance was good. The bowels were unwilling to act. The surface of abdomen was vesicated by the turpentine. She was ordered to take three drachms of castor-oil and two drachms of spirit of turpentine; to have a turpentine enema at the end of three hours; to have an anodyne fomentation constantly applied; and to have good meat broth. The catheter was used.

9 P.M. She had had two liquid stools since the morning, of a light brown colour. She had also passed urine once without the catheter. She kept the medicine down; but vomited some arrowroot taken a little while ago. The abdomen was less tender; and she had some quiet sleep; but the pulse was very feeble, and rather more frequent. She was ordered to take a drachm of spirit of turpentine every four hours.

Dec. 26th, 9 A.M. She had a tolerably quiet night; but, although inclined to sleep, was disturbed frequently