

Surgery in London at the beginning of the nineteenth century : as observed by an American surgeon of the old school / by J. Collins Warren.

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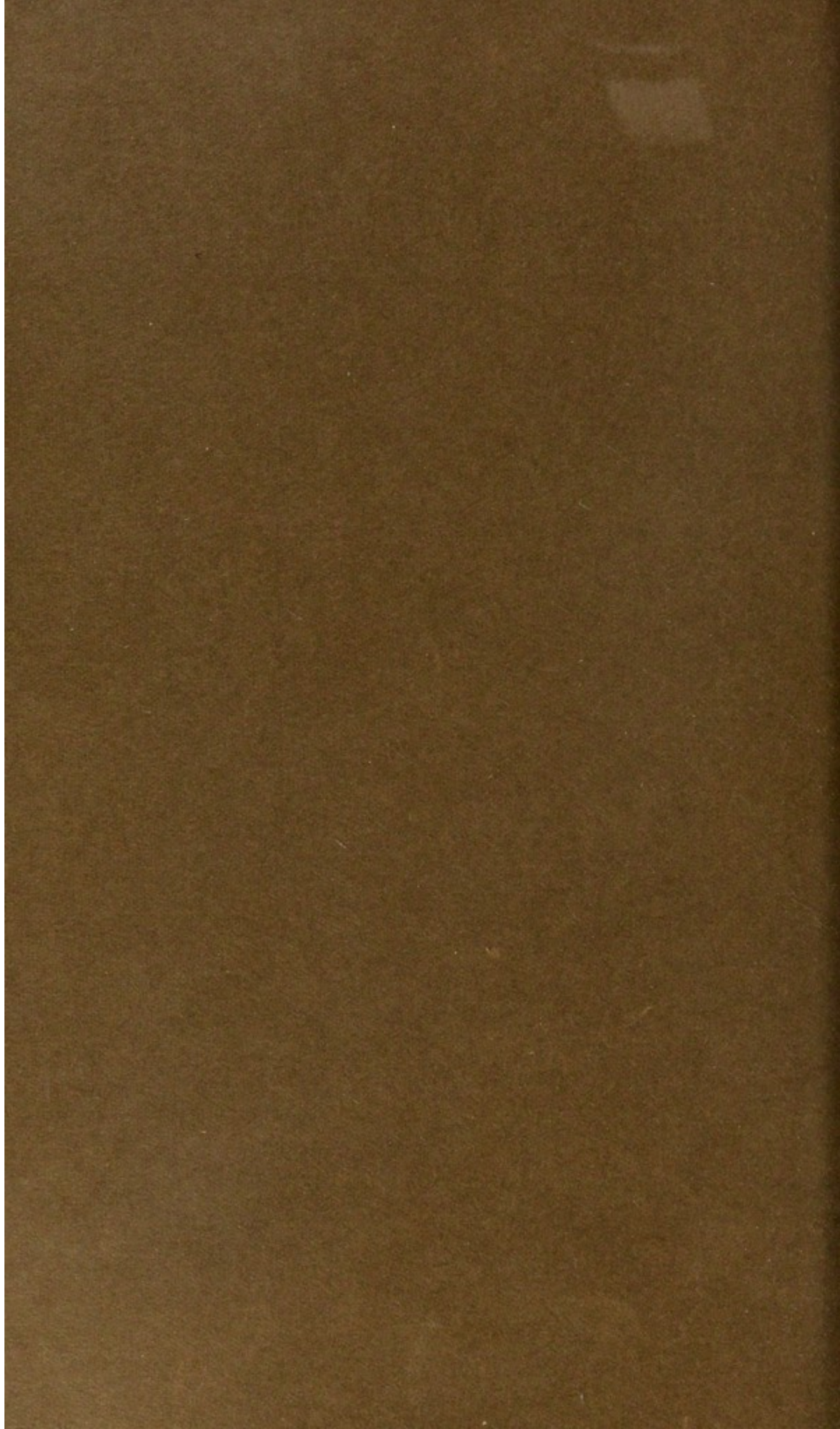
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Surgery in London at the Beginning of
the Nineteenth Century, as Observed
by an American Surgeon of the Old
School

BY
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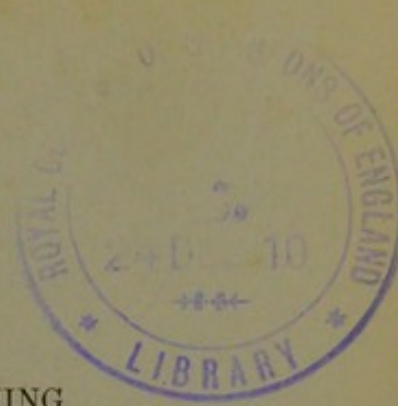
BOSTON, MASS.







EDWARD REYNOLDS, M.D.



SURGERY IN LONDON AT THE BEGINNING
OF THE NINETEENTH CENTURY, AS OB-
SERVED BY AN AMERICAN SURGEON OF
THE OLD SCHOOL.*

BY J. COLLINS WARREN, M.D., LL.D., F.R.C.S. (HON.).

In looking over some old papers a few years since, I chanced upon a package of letters, yellow with age, written in an exquisitely neat handwriting, from Dr. Edward Reynolds to Dr. J. C. Warren, describing his experiences as a student in London and Paris during the years 1816, 1817 and 1818. Giving as they do the fresh impressions of a young and enthusiastic student of medicine, they seemed to bring very near to me an interesting period in the history of medicine, when old-time empiricism was beginning to drop away and men were beginning to think and act for themselves. They also give glimpses of the work of one or two of the great lights of surgery.

The writer of these letters, Dr. Edward Reynolds, was born in 1793 and graduated from Harvard College in 1811. He does not appear to have taken a medical degree at the Harvard Medical School, although he served a long pupilage with at least one of its teachers. After spending three years abroad, chiefly in the great

* Read before the Boston Society for Medical Improvement (an Historical and Memorial Society), March 28, 1910.

schools of London and Paris, he returned to Boston to enter in the practice of his profession. According to the Quinquennial Catalogue, he received an Honorary M.D. from Brown University and Bowdoin College in 1825.

Having devoted a portion of his time in London to the study of diseases of the eye, he was able on his return to operate upon his father, who, at sixty years of age, was blind with cataracts in both eyes. The operation proved a complete success. It had never before been undertaken in Boston, and becoming widely known, it formed the foundation of an extensive practice in the new specialty of ophthalmology.

The New York Eye and Ear Infirmary had been founded in 1821, and this doubtless stimulated Dr. Reynolds to found a similar institution in Boston. In conjunction with Dr. John Jeffries, a private dispensary had been opened for diseases of the eye in Scollay's Building, which then stood in the center of what is now known as "Scollay Square," and from this sprang the Massachusetts Charitable Eye and Ear Infirmary, which was founded in 1824.

But Dr. Reynolds did not confine himself to diseases of the eye. He was not only a general practitioner, but was also greatly interested in surgery, and in 1828 he was nominated for and occupied the position of assistant surgeon to the Massachusetts General Hospital. The duties of this office are indicated by a note written to a predecessor in the office as given on the next page.

BOSTON, Nov. 14, 1823.

Dear Sir,—It is my intention to nominate an assistant surgeon to the Massachusetts General Hospital. For important reasons this office will not be held more than a year by the same individual generally, and never more than two.

The principal duties will be:

1. To visit the hospital daily, at 9 A.M., or immediately after the medical visit.
2. To see that the directions of the surgeons are complied with, that dressers are appointed for each patient, and that they do their duty faithfully.
3. To examine and admit new patients, for which purpose it is sometimes necessary to visit them in town.
4. To visit the hospital in case of accidents, as fractures.
5. To be at the hospital when an operation is performed; to see that the house apothecary makes every arrangement for the operation and that everything is ready before the hour.
6. To do such other duties as may be required by the attending surgeon.
7. To examine the record book and see that the house apothecary duly enters each case, and every prescription; and also that the prescriptions have been administered.

Such are the most important duties of this place. If on due consideration you would like the situation, I will nominate you to the trustees to-morrow evening.

Please to return this letter, or a copy, by tomorrow evening.

Yours,

(Signed) J. C. WARREN.

Dr. Reynolds accepted this position with great hesitation, evidently anticipating that it was not adapted to fit in well with his work at that particular period, for he resigned the position in 1829, having evidently not occupied it for more than one year, saying, "Excepting to a student there is no honor and no profit in it." This does not, however, imply that he was not interested in surgery, and during Dr. Warren's absence in Europe, in 1838, the lectures in anatomy and surgery at the Harvard Medical School were entrusted to him.

He was also one of the founders of the Tremont Medical School, and taught surgery. When a professorship in surgery at the Harvard Medical School, however, became vacant, he declined to accept that office, urging instead the choice of a very much younger man, Dr. Henry J. Bigelow, whose talents and youth he recognized fitted him better for this position.

Dr. Reynolds, as the title of this article indicates, was a fine specimen of a gentleman of the old school — of magnificent physique, he towered above all his colleagues. His commanding presence was combined with a most genial and courteous demeanor. His bearing and manners were those of a man of great refinement.

Few of those who had the privilege of hearing him, at a meeting of this association, shortly before his death, deliver an account of his predecessors in the medical profession in Boston, will ever forget the occasion. It was a charming recital of the

characteristics of the Boston medical worthies of that period, bringing out all their peculiarities, while skillfully avoiding any unpleasant criticism. I fear that no stenographic report of that meeting was ever preserved.

Dr. Reynolds was a grand old man, representing the generation which has left its stamp upon the character of the medical profession in Boston, and as the last survivor was a fitting representative of that period. He died shortly after this, in 1881.

In addition to the letters given below, there remain fourteen bound volumes of neatly written lecture notes, and it may be interesting to give a brief summary of their contents. There are two volumes on "Theory and Practice of Surgery" by John Hunter. As Hunter died in 1793 these were probably notes taken from other lecture notes which he found in London during his studies there. There are three volumes of notes on the lectures of John Abernethy on "Anatomy and Surgery and Physiology," delivered at St. Bartholomew's Hospital in 1818. There are three volumes of notes of Astley Cooper's "Surgical Lectures," delivered at St. Thomas's Hospital in 1817, and also notes of lectures by Astley Cooper at St. Thomas's Hospital on "Physiology" in the same year. There are two volumes of notes on Dr. Haighton's lectures on "Midwifery," and a volume of "Surgical Cases" taken at St. Thomas's and Guy's hospitals in 1816 and 1817.

On the flyleaf of one of these books is a

memorandum written by his son as follows: "Old notebook with the notes of cases. Observations of doctors and surgeons taken at the daily visits at Guy's Hospital in 1816 and 1817 by E. R. Given to J. P. R. as a curious specimen of the science of England's great men at that period. Proh pudor! It was carefully preserved and often referred to in after years as a safe guide in practice, because it would boast of such an exalted paternity." On the flyleaf of several of these volumes is the following motto: "A pound of practice is worth a ton of theory."

It may not be inappropriate to say a word or two here about Sir Astley Cooper, who is so constantly referred to in Dr. Reynolds's letters, as it will enable the reader to refresh his memory as to the status of the medical profession at that time and to appreciate better many of the allusions therein contained.

Sir Astley Cooper was born on Aug. 26, 1768. He was, consequently, in the height of his professional career at the time Dr. Reynolds was in London. He was appointed surgeon to Guy's Hospital in 1800. He does not appear to have held many of the physicians of his day in high estimation, and in that estimable biography of his uncle by Bransby Cooper he is quoted as saying, "I was always of the opinion that Mr. Cline and I gained more reputation at the hospitals by assisting our colleagues than by our own operations, for they were always in scrapes, and we were obliged to help them out." This was at-

tributed by him largely to the small amount of attention that they had paid to the science of anatomy. He speaks of Dr. Fordyce as a coarse man and bad lecturer, got drunk very often and, Mr. Cline said, was not over-careful about truth. "He was a remarkable instance of the force of habit, maintaining to the last that fermentation was the cause of digestion and secretion."

His reference to Matthew Baillie, another physician, was more flattering: "He laid the foundation of the practice of medicine as it at present stands, for, before his time, it was chiefly empirical. It was his cultivation and knowledge of morbid anatomy and numerous opportunities in practice that gave to medicine the scientific character it now holds.

"Mr. Curry was also in my view a great empiric; for him there was only one organ diseased — the liver — and only one medicine to be prescribed — calomel. He could not be corrected, for, if one of his patients died and was examined, and Mr. Curry was told that there was no disease of the liver, he replied that he had cured it!

"Such was medicine until Baillie brought out his work, and since his time every physician has felt it necessary to be conversant with anatomy, morbid anatomy and medicine."

Of Sir Astley at this period Dr. Roots, who was a dresser under Mr. William Cooper at Guy's Hospital, writes, "His presence brought confidence and comfort, and I have often observed

that on operating day, should anything occur of an untoward character in the theater, the moment Astley Cooper entered and the instrument was in his hand every difficulty was overcome and safety generally ensued."

Mr. Travers, a distinguished member of the profession and a "house pupil" of Astley Cooper, thus describes him: "Astley Cooper, when I first knew him, had the decidedly handsomest, that is, the most intelligent and finely formed, countenance and person of any man I remember to have seen. He wore his hair powdered, with a queue, then the custom, and having dark hair and always a fine, healthy glow in his cheeks, this fashion became him well. His frequent costume during the summer when taking horse exercise (for at this season he rode daily on horseback) was a blue coat, yellow buckskin breeches and top boots, then much in vogue."

As would seem by the letters given below, Mr. Cooper did not have a very high opinion of medicine. He had five or six formulæ which under ordinary circumstances constituted his complete pharmacopeia. His biographer says, "I have heard him say, 'Give me opium, tartarized antimony, sulphate of magnesia, calomel and bark, and I would ask for little else.'"

In 1825 Sir Astley sent in his resignation as a lecturer at St. Thomas's Hospital, but owing to the fact that the successor whom he nominated was not appointed, a school of medicine was established at Guy's Hospital, and his nephew and

Mr. Key were appointed respectively to the chairs of anatomy and surgery, and the new school at Guy's Hospital which has since been in existence was thus founded.

Sir Astley became consulting surgeon at Guy's Hospital in 1822, thus indicating that he was retiring from the more active work of his profession. He died on Feb. 12, 1841, in the seventy-third year of his age.

Dr. Reynolds did not attend the lectures on surgery alone, but acquired some knowledge at the Royal London Ophthalmic Hospital, which was opened for service first in 1805, of the speciality in which he afterwards became so prominent. This date seems indeed to have marked the beginning of the period of specialization in medicine.

LONDON, June 17, 1816.

Dear Sir, — I have received your letter this morning, which has given me much pleasure, and I have sat down to answer it while the feelings which your kindness has excited are still alive in my recollection. The business of London and Guy's Hospital, to be sure, if properly attended to, occupies a very large proportion of a man's time, but not so much that there is none left for the friends who remain behind him.

I think that a pretty industrious attendance upon this [medical] department of the hospital during the winter has enabled me to obtain a good general acquaintance with the opinions of its physicians and the principles of English practice, which, I am convinced,

is all in general that can be acquired by a young man before he begins his business, and which I hope is all that is absolutely necessary for him.

From the great popularity which Mr. Cooper gives to the science of surgery, it has become fashionable for the pupils to neglect medicine altogether, as an inferior branch. As a proof of the prevalency of this feeling there have been, of four hundred pupils, only eight or ten medical ones. The result is that a great number of them seem to be almost entirely ignorant of almost every part of the profession, except Mr. Cooper's general principles of surgery. I have frequently been astonished at their want of information, even of many circumstances that are known by all who have ever opened a medical book. But I do not know but it has been an advantage to me in one respect — that from the small number who have attended upon the physicians, I have had a much better opportunity of observing the diseases and becoming acquainted with their remarks than I should have had if the cause was more popular.

My medical ticket expired in May, and I have now taken a surgical one. I have not neglected to attend to medicine because I have begun to study surgery. It is my object to attend to both. I think that the English draw too broad a line of separation between medicine and surgery. I do not believe that they admit of such a division. They are sister branches, mutually dependent on each other, and very intimately connected together. I think to be an accomplished man in either branch requires a knowledge of both.

I had quite mistaken the intended nature of your advice respecting surgery, and surely must have been a very clumsy or very careless hearer.

I intend taking a ticket soon at the Eye Infirmary.

Sir's

Hospital.



THESE are to Certify that Mr. Wm. Reynolds hath DILIGENTLY attended the Practice of Surgery as a *Pupil* in this and St. Thomas's Hospital for twelve Months last past. Witness our Hands this 11th Day of May in the Year of our Lord 1817

George Chandler
Henry Clune Jun
Benj. Graves

Surgeons
at
St. Thomas's Hospital

W. Keble
Steward

Surgeons
at
Guy's Hospital

Physicians
Wm. Lucas
Attley (copied)

THESE are also to CERTIFY that the above said Mr. Wm. Reynolds hath Diligently attended three of our Courses of Anatomy - and Operations. Witness our Hands this 11th Day of May 1817

Attley (copied)

Henry Clune Jun

MR. Wm. Reynolds hath likewise with great Care and Diligence attended to DISSECTIONS and the making of Preparations as a *Dissecting Pupil* during Three of our Courses. Witness our Hands this 11th Day of May 1817

Attley (copied)

Henry Clune Jun





This, with the hospitals and midwifery, will, or ought to, make me a very busy man during the remainder of the year.

None of the London lecturers whom I have heard make use of any notes. The syllabus is all the assistance of this nature which they avail themselves of. Mr. Cooper uses nothing of the kind. I have never seen even the smallest piece of paper before him; he seems to depend entirely upon his memory and his thorough acquaintance with the subject of which he is speaking. (I think I ought to add that they would be better if he used notes of some kind or other; that he preserves no system or order whatever, skipping frequently from one subject to another before he has completely finished it. I consider this circumstance as their only fault.) This seems to be the fashion among the lecturers of Guy's Hospital. There appears to be a sort of pride with them to be able to get along independent of any foreign aid. Dr. Blundell, a young man who is to be the successor of Haighton, cannot lecture altogether without notes, but I have observed that he endeavors to conceal them very studiously. It is supposed that Dr. Cholmeley uses them. He has contracted a habit of holding his head down when he is lecturing, and it is believed among the students that it is for the purpose of reading his notes, which they think he conceals upon his knees. But I have never seen any one who had a better reason than suspicion for his belief. Abernethy never uses notes. Professor Brande does.

The whole of Mr. Cooper's class can see his demonstrations with ease generally, except in those few parts of anatomy which are too minute to be discovered by the eye at any considerable distance. His theater is remarkably convenient. He always demonstrates the same subject three times, turning himself at each time

to the three sides of the room. If the subject on which he is engaged is unusually important and practical, he demonstrates it a fourth time, to accommodate those who stand by the door behind him. This repetition renders his lectures rather tedious. But he seems to possess a very strong desire to impress upon the mind of every one present in the clearest manner possible the objects of his demonstrations. His demonstrations are plain, practical and important, and the language in which he explains them is perfectly simple and unadorned. He never attempts at ornament except when he is dilating upon the particular subject before him, which he takes every opportunity of doing. He never lets an occasion pass unimproved which is favorable for explaining to the class the nature, the diagnostic signs and the principles of cure of the surgical disease of such parts as he happens to be lecturing about. This is one circumstance which renders his lectures so valuable. He never contents himself with the simple anatomy, but they contain what may be considered as the result of his experience in surgery; for instance, in his lectures on the bones, he gives you all the diseases of the bones, and so of the muscles, veins, viscera, and, indeed, the same is true of every part of the body.

With regard to his preparations, if there are a great many he generally places them all upon one table and explains them singly in a general lecture upon the particular subject which they are to illustrate. When he lectures with the dead body, there are not commonly a great number of preparations, and these stand upon the same table with it. They produce no inconvenience, as he turns the table partly around and goes with it himself, always leaning his back against it and standing between it and those students to whom he is directing his particular attention. He always stands when he is

explaining the anatomy of parts, and sits when he makes his general remarks. He is upon the whole one of the pleasantest lecturers that I have heard. He is very much beloved by the students; they almost idolize him. When he delivered his farewell address to them this year, the enthusiasm which it excited among them was so great that they wanted to take his horses out of his carriage, and so great was the commotion that he was absolutely obliged to escape their attentions by going home by a narrow passage behind the dissecting room. He walked on to some appointed street, where the coachman probably took him up, and he was thus relieved from their clamorous and perhaps vulgar civilities.

The fractured thigh is always placed at Guy's in the bent position upon the heel, and supported in that position by a pillow being placed under the knee, or by the common wooden machine. "Of late" (says Mr. Cooper in his lecture on this subject), "the straight position has been strongly recommended by Boyer and Roux, and I am informed that the surgeons in our armies have been much in the habit of employing it, and that their fractures have succeeded very well. But if my own thigh was broken, I would have it treated according to the plan adopted at Guy's Hospital. I think that they who employ the other proceed upon a false principle. By it, the muscles are put completely upon the stretch, and the bone upon which they act must, necessarily, be shortened, unless it is prevented by some counter-extension. As far as I at present know, the bent position upon the heel is decidedly the best."

A very good case has lately been effected at Guy's by the straight position, but it was preserved so by Boyer's apparatus. I have seen many very perfect cures by the former method.

Mr. Cooper thinks that the radical cure of hydrocele should never be attempted in very old persons because it submits them to more hazard than the nature of the disease justifies. In such cases, he is in the habit of drawing off the water every four or six months, which relieves them of all urgent symptoms, and he thinks it preferable to the operation by injection, which in such is certainly not without danger.

He never performs an operation on children. He thinks that the absorbent system is sufficiently active in them to supersede its necessity, and he excites them to increased action by the local application of stimulating lotions. Mr. Cooper thinks that in adults the mode by injection is decidedly preferable to any of the others. The fluid which he recommends is an infusion of sulphate of zinc, in the proportion of about $\bar{3}$ i to lb. \bar{j} of water. He thinks it better than wine because it can always be depended upon, whereas the strength of the latter varies so much that we are very apt to be disappointed in its effects. He always prefers a small trocar to a lancet for puncturing the scrotum.

If the patient is old, he advises a suspensory bandage to be worn just after this operation, in order to support the parts, or there is danger of mortification, on account of the weakness of the circulation in such patients. He has known the operation to terminate fatally in two cases. Both were old men.

Mr. Cooper has entirely relinquished the use of pins in harelip. They cause a great deal of unnecessary irritation and do not answer so well as ligatures. His mode of operating is this. He pares the edge of the lip on each side, by introducing a common lancet at the upper part of the triangle which is formed by the fissure, and carrying it straight forwards until it is completely divided. He prefers the lancet to the scalpel,

thinking it much more simple and convenient. In passing the ligatures, he employs a straight needle and carries it, at the part where the red lip terminates or begins to mingle with the white skin, through from before, backwards, in a straight line on one side, and brings it out in a straight line from behind forwards, on the other, and ties it. A second ligature is used higher up. These are drawn together loosely, just enough to produce an approximation of the lips and no more. No plasters or bandages are employed, but it is exposed freely to the air. Upon the same principle, he never uses any bandages or coverings to his stumps except merely sticking plaster enough to bring the lips of the wound together, and a bandage just above it, round the limb, to prevent retraction. He exposes the wound freely to the air, and most commonly applies evaporating lotions. The other surgeons of Guy's, Messrs. Lucas and Forster, dress their stumps in the old way. I think Mr. Cooper's heals soonest. Mr. Cooper removes the upper ligature in harelip on the fourth day and the lower one on the fifth. He never performs the operation at an earlier age than two years. Formerly he was always in the habit of doing it and thought the age of no consequence. But he was taught to change his opinion by having lost three patients from the constitutional irritation which it occasioned and from knowing several other fatal cases of it which happened to other surgeons.

Mr. Cooper always endeavors to cure the bursal diseases of the joints, first, by stimulating applications, such as Empl. Ammoniacum, etc., and pressure. If this does not succeed in exciting absorption of the fluid effused, he uses blisters, and if still unsuccessful he puts a small needle and thread through it for two or three days, and then employs pressure. He has strong

objections to any considerable openings into such tumors, as they are apt to induce violent inflammation and dangerous consequences. Indeed, he never does it.

I have not heard of any new machinery for clubfeet; if there had been any improvement of this kind, Mr. Cooper would probably have mentioned it. He thinks very well of Boyer's new work. "The mechanical parts of French surgery," he says, "are always good; it is only the physiological part in which they are deficient."

[It will be remembered that Sir Astley Cooper made a special study of diseases of the breast. Dr. Reynolds's remarks in this letter are of special interest.]

LONDON, July 4, 1816.

Dear Sir,— . . . In Mr. Cooper's lecture on diseases of the breast this winter, he mentioned several circumstances which were new to me, and the result of his experience, which I thought very valuable and interesting. Of the hydatid or encysted tumor of the breast [he says] the cure depends altogether upon the number and size of the cysts. If the breast is generally affected with them, extirpation will be necessary; if the cyst is single and large, it may be cured by an opening or by an injection. Mr. Cooper became acquainted with this circumstance by a case which came under his care. A girl was sent to him from the country by a gentleman in order to have the operation for extirpation of the mamma performed. She was admitted into the hospital and brought into the theater for the operation, when on feeling the tumor Mr. Cooper perceived that there was a sense of fluctuation in it, and he was induced, instead of taking it out, to puncture it with a lancet. It was followed by a quantity of glairy fluid, the lips of the wound were closed with lint, and the result was that the cyst adhered and she was cured

without any further operation. "I took the hint [says he] from the accidental occurrence of this example, and am still in the habit of doing the same when there is only one cyst." I do not recollect having seen this circumstance mentioned by any author.

[The late Dr. Bull was in the habit of puncturing single cysts with a subcutaneous syringe, and drawing off the fluid. I myself have accomplished a cure in this way, but modern ideas as to the possibility of a proliferation of the epithelial lining of these cysts and the development of cancer lead, I think, to the conclusion that it is safer to have the cyst wall removed as well as its contents. It is, however, interesting to see how keen Sir Astley's perception was, and how quick he was to take advantage of peculiarities in the natural history of a given disease. Sir Astley was, however, often under the spell of the old views of pathology, which have even held good in the minds of many surgeons through the succeeding generation, for Dr. Reynolds goes on to say in his letter, —]

Mr. Cooper thinks that the true scirrhus of the breast is a constitutional disease, and considers this circumstance the reason why so many, so very many extirpations of it fail to effect a cure. He is led to this opinion by dissections and the symptoms of the latter stages of the disease. These are, I believe, such as have not been very generally known till of late years. The symptoms to which I allude, and which you have probably noticed are spasms of the stomach, rheumatic pains in the shoulders and loins, difficulty of breathing and of lying, except on the side where the disease is situated, etc. "The examinations of patients who have died of this disease," says Mr. C., "have always shown me the following appearances: The uterus is always diseased and found to have lost its usual appearances. There are

tubercles on the liver, lungs, the uterus, the ovarium and on the pleura, opposite the disease. There is water, too, generally in the chest. And there is another circumstance not commonly known — the bones, particularly the os femoris and the spine, are found to be affected by it. In those who are the subjects of cancer, these will often break and give way without any apparently sufficient cause. In two of my private patients, this happened, — one of them found her thigh broken only from the exertion of getting out of bed; and in the other it occurred while she was walking across the floor. I could not, with all my endeavors, make them unite in the least degree."

Mr. Cooper never operates now when the disease has extended to the glands in the axilla or when any of the above-mentioned symptoms are present, and considers it a useless attempt, and he says that the subject is regarded with similar feelings by most of the English surgeons who have had much experience in it. Of more than one hundred cases in which he has operated, he says that he could not produce six permanent cures, and it is consequently an operation which he looks back upon with very little pleasure or satisfaction.

Mr. Cooper says that he performed the operation for true scirrhus very much more frequently in the younger part of his life than he does now.

In extirpation of the testicle, Mr. Cooper always passes a needle and thread between the spermatic cord and vas deferens, previous to his division of them, which he gives to an assistant, to prevent their retraction by the cremaster muscle. He then divides them, and instead of dissecting out the gland, as is usual, he takes hold of the upper portion of the cord with one hand and draws the whole out at once, with aid of a few strokes of the knife. In this way much pain to the

patient is avoided and the operation is finished in half the time. The first time that I saw him do it, I was astonished at the ease and celerity with which it was executed. He reprobates in the strongest terms the tying a ligature round the whole cord and has seen a case of convulsions and death occasioned by it. "No man," says he, "who has ever had his testicle violently squeezed will ever suffer himself to do it. The agony which it occasions is most excruciating and such as the stoutest man cannot endure without complaining."

He never employs the forceps in removing nasal polypi, but uses scissors instead of them, which gives the patient much less pain and an equal chance of a cure of the disease. He thinks the opinion that the former give more security against a return of the disease, if not absolutely erroneous, not sufficiently correct to authorize their use. It is equally apt to return again, as far as my experience goes under both, and I have seen very few cases where it has not.

In removing encysted tumors [hydrocele] Mr. Cooper always cuts into the cyst and evacuates the fluid contained as a first step of the operation, and then, instead of dissecting round them, as would be otherwise necessary, he draws it out with a few strokes of the knife in the same way as in the extirpation of the testicle. This method of operating saves one half the time that is required in the attempt to take the tumor out whole. He has taken them out at the theater in both ways this winter for the purpose of showing the students the comparative ease with which the two methods were accomplished.

He thinks that it is never necessary to puncture the bladder for a diseased prostate gland, but that the difficulty may be always overcome by the proper use of the large catheter.

In those cases of stricture, etc., which require an opening into the bladder, he never performs it over the pubis, nor by the rectum, but through the perineum. He gives this the preference because it is the route by which nature always relieves herself when she effects a cure and because he thinks it more convenient to the patient afterwards.

Mr. Cooper's chief principle in the treatment of compound fractures is to render them, if possible, simple ones. With this view, unless there happens to be much contusion of parts, he never applies poultices to promote suppuration, as was formerly practiced, but merely puts a piece of lint over the wound, brings it together by adhesive plaster and bandages, and very often uses evaporating lotions to reduce inflammation. By such a plan, he says that he saves many legs which would otherwise be lost, and he advises all who doubt its propriety to take a certain number of compound fractures and to treat half according to the former and half according to the new method, which will at once decide them in favor of the latter.

In injuries of the head he never trephines unless there are urgent symptoms, and after the operation he applies poultices in order to promote suppuration from the parts.

He prefers the extraction of the lens in cataract to the other modes of operating; he thinks it on every account decidedly preferable and strongly advises all who intend pursuing this branch of the profession to make themselves perfectly familiar with it. It is practiced almost exclusively by the surgeons of the London Eye Infirmary.

[This was not the custom at the time or until long afterward, as I can remember the time when extraction for cataract was one of the operations ordinarily per-

formed by members of the staff at the Massachusetts General Hospital.]

Mr. Cooper's greatest talent as a lecturer is that he conveys his opinions in such a manner as to be perfectly understood by all who hear him. He has, I think, an uncommon faculty of simplifying every subject which he attempts to illustrate. It appears to me that no man of however common an understanding can go out of the anatomical theater without being familiar with his principles and opinions.

His quickness and accuracy in distinguishing diseases is truly wonderful; he seems to require only one look and one feel and every difficulty vanishes from before him. I do not believe that in this respect he is excelled by any surgeon in the world.

LONDON, Jan. 3, 1817.

Dear Sir, — Perhaps you may be surprised to find that I am still in London, but upon comparing the advantages which it affords for the pursuit of our profession with the advantages of other places, I thought them equal, if not superior, and under such circumstances it appeared to me that I should find it more useful to remain here another winter. Mr. Cooper's lectures seem doubly valuable and splendid upon a second hearing. Perhaps the reason of this may be, not that they are better, but that I understand them better, after having had an opportunity of attending for a year the practice of the hospital and seeing his principles illustrated at the bedside. The more I see and the more I learn, the higher Mr. C.'s professional talents rise in my estimation.

I think also that I am deriving very great advantages from the course of clinical lectures which are going on at Guy's this winter. I have been attending industri-

ously to them, and with much satisfaction. They are certainly of all lectures the most useful because the most practical. This is the second attempt which has been made to render Guy's a medical school. But it is strange, there are only twenty pupils attending them. This circumstance is owing principally (I think) to one of Cooper's errors. He holds the science of medicine in much contempt, and his very frequent observation upon it "as a mere system of quackery" have given an unfortunate bias to the minds of the pupils (who have got into a habit of venerating all his words), which the most active endeavors of the physicians have not been able to correct. The students have such an exalted opinion of his calomel and oxymuriate and believe so firmly that all diseases must yield to it, that they seem to think it a waste of time to attend to them. This is one of Mr. Cooper's most unfortunate prejudices — unfortunate because it is not confined to himself, but extends to all who are under his influence. He knows but very little of medicine himself, and he is the cause of many others being equally ignorant.

As I was unable to receive a degree before I left Boston, I believe I shall get one from the college in May. It appears to me preferable to returning without one, — not because I consider it better, but because it would be rather unpleasant to submit to the usual examinations with those who are so much younger than myself after my return. I have written to my father upon the subject of my return, and if he consents I shall prolong my stay in Europe. I shall pass the summer in Edinburgh, and the winter in Paris.

I regret that I have not had the pleasure of seeing or hearing Mr. Cline since my arrival in London. His health has been so bad as to prevent him altogether from lecturing and attending to ye hospital, and he has

now entirely relinquished both. Mr. Cooper has substituted Mr. Greene in his place. He is a young man (not more than twenty-two), of very good talents, but not sufficiently accustomed to lecturing to render himself interesting to those who have been in the habit of hearing Mr. Cooper. Mr. Cooper has also taken Mr. Travers into partnership with him in his surgical lectures. He has been giving us a full course of lectures on ye diseases of the eyes, of which he has had a very extensive opportunity of becoming acquainted with, at the London Eye Infirmary. These render the courses more valuable than they were before. He is not a very pleasant lecturer, — his voice is low and his manner is very inanimate and uninteresting, but his matter, however, is very valuable.

Mr. Cooper always promotes speedy adhesion of the lips of the wound after removing the breast. He says that the prevention of it "is contrary to principle, and the hope that the suppuration will destroy the disposition of the disease to return is quite unfounded and vain." He told me to-day that he had seen it come on again frequently before the suppuration had subsided, and he considers it a disease which will very often return, and equally under immediate or protracted union.

Mr. Cooper condemns in the most decided terms the practice of putting ligatures on veins under any circumstances. Four cases of death have occurred within ye last three years at Guy's Hospital, — one at the West End and one at Nottingham. They all died of ye inflammation which was excited in the veins. A fifth is now in ye madhouse (St. Luke's) from ye same cause. He has lectured to us upon no subject in a more decided manner. He is equally decided upon the use of the double ligature in aneurism, and he represents ye single one as in the highest degree dangerous and un-

warrantable. But since I have been in London, there have been six cases of popliteal aneurism at the London Hospital which have, in succession, been cured by the single ligature, and there has been an equal number at Guy's, cured by the double ligature. Mr. Travers ten days ago performed the operation at St. Thomas's with only one, and to-day it has begun of itself to come away, without any hemorrhage. But still Mr. Cooper will not qualify his opinions about it at all, nor speak the smallest way in its favor. He represents it as being contrary to all true principles, and warns us against adopting it, unless "we are willing to get our knuckles rapped." He thinks that the danger consists in ye retractile power of the vessel breaking down ye newly formed adhesions, as soon as it is set at liberty by the removal of ye ligature. Dr. Marcett has instituted a course of experiments at our clinical wards with the nitro-muriatic acid bath as a substitute for mercury in secondary syphilis and affections of the liver. It was first recommended by Dr. Scott, a practitioner in ye East Indies, who has lately returned to England to spend his fortune. It is used in the following way: About ʒi of dilute muriatic acid and ʒi of the dilute nitric acid are put to a gallon of water, and in this the patient bathes his feet night and morning. With regard to ye proportion of ye acid, however, Dr. M. tells us that it should be regulated by the taste. It should be made of about the taste of common vinegar.

Mr. C. has lately cured a case of ununited fracture of the tibia of two years' standing by cutting down upon the bone and touching its extremity with caustic, using rest afterwards and bandages. The man walked from the hospital about a fortnight ago.

Another interesting case which we have lately had at ye hospital is one in which he has established a new

urethra. The boy was some years since hooked by a cow, which caused an inflammation in the lower portion of the urethra, by which it became closed. He has passed his water entirely for a long time through a fistulous orifice in ye perineum. He passed a staff down to the imperforate part, then made an incision as in lithotomy, and by means of a bistoury he opened his way into the bladder. He then introduced a metallic catheter into the bladder, which has been worn constantly for six months. The boy has suffered little or no pain. The fistulous orifice in the perineum has healed, and he is now quite cured and passes his urine by the natural passage as well as ever.

Our opportunities for studying are very extensive, and I often regret that want of time and ability prevent me from embracing them all and that I still feel so deficient. Sometimes in my happier moments I fancy that I begin to see my way through the mists which lie before me. But at others again I am almost inclined to despair when I find that my extended opportunity to learn shows me so many things that are unlearnt.

LONDON, March 10, 1818.

Dear Sir, — I am again in London, where I have been two months, attending Abernethy's lectures, which I left Paris for ye purpose of hearing, and I am very glad I did it, since I think I am deriving very great advantage from his instructions, and I am sure I should always have regretted it if I had returned to America without doing it. He is decidedly ye greatest man whom I have seen in the profession, and his lectures are ye most valuable which I have heard.

I passed eight months very profitably in Paris. I found much more to be learnt there than I had anticipated from the accounts which I had been in ye habit of

hearing in England of the state of French surgery. The prejudices of ye English extend a little, I found, to science as well as politics. But still I do not think ye French such good scientific surgeons as ye English. Theoretical surgery is better understood here, and the mechanical parts of surgery are more perfect there. I employed my time chiefly while at Paris in studying anatomy, for which no place affords such advantages.

I was very sorry that I could not execute your commission while in Paris to my satisfaction. I found that a good skeleton was not to be procured. So many English have flocked over there within ye three last years that everything of ye kind has been taken away. I cannot think of any other cause for ye difficulty, indeed, the impossibility, of procuring such skeleton as I thought would please you.

I shall return to America by one of ye June or July ships. I have been so long absent that I look forward to that time with many pleasing anticipations, though not without some which are the reverse, because I still feel, after all my advantages, that I have much to learn before I am well qualified to practice my profession. But it is my consolation, if such it can be called, that all who have gone before me, have on this point participated in the same feelings.

With respect and esteem, I remain,

Yours very sincerely,

EDWARD REYNOLDS.

As I stated above, Dr. Reynolds on his return from Europe found his father already afflicted with blindness. There were no specialists at that time in this part of the country, and the son resolved

to do what he could for his father. In this connection a letter written to me, dated Jan. 5, 1910, by his grandson, Dr. Edward Reynolds, is interesting, and is a fit conclusion to this paper.

"I well remember my grandfather's telling me of his operation on his father's eye, and probably my recollections of it may be of some interest to you. He told me that his father, finding his eyesight failing, made great efforts to accustom himself to its gradual disappearance and to the performance of his ordinary duties without the aid of sight, and that upon one occasion, after finishing the process of shaving himself before a large mirror placed between two windows in his room, he put away his razor and, turning to his wife, said to her, 'My dear, I am at last totally blind, I can see nothing.' My grandfather said that his father had written him nothing of this infirmity, which came on while he was a student in London; that it was, in consequence, a great shock to him to find his father blind. He said that on looking at the eyes, and satisfying himself that the blindness was due to cataracts, he thought the situation over; that his father was too old to take the sailing voyage to London, and, so far as he knew, no operation for cataracts had been performed in America, and certainly none in this locality; that he was, therefore, probably better qualified than any one available for the performance of the operation, and that he decided to attempt it. He said, 'I went into my closet and offered a prayer to deity for success, took a

glass of sherry and went ahead to do my best.' .
The three phrases of this sentence have always
seemed to me exceedingly characteristic of the
man as I knew him."