THE HUNTERIAN ORATION

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BY

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As a member of the Court of Examiners to this College I have on many occasions sat in the Council Chamber before the portrait of John Hunter while examining a candidate. It was natural in the circumstances that the question should arise as to what Hunter would have thought of the knowledge displayed by the candidates. Would he have been astonished at the ignorance or pleased with the knowledge displayed? Would he have been amused or irritated when the examinee expressed total ignorance of John Hunter and the work that he did? Such musings led me to wonder what would have been Hunter's opinion of our present-day education. From there again my thought turned to a comparison of the circumstances and conditions under which medicine is learnt and practised to-day and one hundred and fifty years ago. It is on this subject I would offer a few reflections to-day.

The life of Hunter and that of the surgeon of the present day can each be divided into three similar periods. The first is that of education or preparation, the second a period spent in war service, and the third a period of practice and fulfilment.

HUNTER'S EDUCATION

Hunter, when a youth, was uncouth and ill-tempered. He refused to be educated in the orthodox way. Instead of attending school he roamed the countryside. This time was not altogether wasted; he was even then pondering the reason for the things he saw about him. It is probable that to this obscure period of his life can be traced the origin of the Earl's Court menagerie, and those letters to Jenner demanding all sorts of queer things, such as bats, eels, cuckoos, fossils, and salmon spawn. These letters show better than anything else the nature and diversity of the man's interests. Hunter referred to this period of his life in the following words, which seem to sum up the motive of his life:

"I wanted to know all about the clouds and the grasses, and why the leaves changed colour in the autumn. I watched ants, bees, birds, tadpoles, and caddisworms. I pestered people with questions about what nobody knew or cared anything about."

Towards the end of this period, and shortly before he left for London, Hunter paid a visit to a brother-in-law, who was a cabinet-maker. Whether Hunter ever actually practised the trade is immaterial at the moment. Jesse Foote, Hunter's detractor, intending to say something nasty, turned this visit to his purpose, and declared that Hunter was a carpenter who had deserted the *chisel*, the *rule*, and the *mallet*, to take up the *knife*. This is a gibe that could not be levelled against the present-day surgeon, certainly not against those that practise our most comprehensive specialty. If surgery has become more scientific it has in some directions become more mechanical. It is not, perhaps, to be wondered at that Foote seized his opportunity, but it is curious that great pains have been taken to prove that Hunter had never acquired the art of the carpenter. Surely there is nothing derogatory in a knowledge of the proper use of tools, a knowledge that is one of the things that distinguish man from the brute beasts.

When I came across this passage in Foote's book it made me ask myself how the manual skill of any surgeon, or perhaps I had better say how my skill, compared with that of a joiner or fitter? Despite what one reads in books and the daily press of the manual dexterity of the surgeon, I came to the conclusion that I had better refrain from pushing the comparison, and took refuge in the thought that the power and worth of the surgeon lies more in his judgement than in his technical skill: the science is greater than the art.

With all that is happening in medicine, I think we are apt to forget the magic that Nature exercises when in the course of a few days she turns the primitive joinery of the surgeon into the thin, firm, and supple scar. Perhaps it was this process which Hunter had in mind when he said, "Original inflammation constitutes a part of the animal economy and is probably inexplicable." Even to-day we imperfectly understand the stimulus that starts the healing process.

MEDICAL EDUCATION

Hunter's medical education commenced in 1748, when, at the age of 20, he joined his brother and commenced to dissect. He at once shed his waywardness, and commenced a life which was a monument of diligence: the round peg had found a round hole.

His medical studies extended over some nine years, but were discontinuous, and, in addition, interrupted by periods of ill-health. In the summers of 1749 and 1750 he studied under Cheselden at the Military Hospital at Chelsea. In 1751 he put in some time at St. Bartholomew's under Pott. In 1754 and 1756 he took a course of surgery at St. George's, and in the latter year was appointed house-surgeon, which post he held for five months. Between the two courses of surgery at St. George's Hospital he went to Oxford, but soon decided that a classical education was not for him. In 1760 Hunter may be described as having qualified, as he was appointed staff surgeon in His Majesty's Army. During all these years he was working in his brother's school.

To understand the opportunities that the times offered to a student of surgery one has to recall the nature of the medical education of the period. It was almost entirely of the apprenticeship system, a great part of which system remains to this day in England. The student usually served a matter of five or seven years, after which, if he wished to practise in London, he had to be admitted into a corporation. To do this he had to obtain the recommendation of somebody of position, or undergo a viva voce examination, which was apt to be more brutal than efficient.

Although there were differences between the hospitals, there was little or no systematic instruction given at these institutions. The lectures that were available and open to the student were delivered by various people at the halls or as private ventures on their own premises. The courses, which varied much in length, were often given late in the afternoon or early evening, at a time when the present-day student expresses himself as tired and mentally unreceptive. The lectures were apparently open to the public, thus showing that the laity were even then interested in medicine.

Some courses were devoted to single subjects, but others, to our present-day ideas, seem a strange jumble of subjects, consisting as they did of anatomy, comparative and human, animal economy or physiology, operative technique, fractures and dislocations, midwifery, and bandaging.

Anatomy was taught by diagrams, models, and sometimes by preparations. It is to be remembered that William Hunter improved the teaching by affording opportunity for the actual dissection of the body. It was part of John's business to arrange for the bodies. Bandaging seems to have been considered important and interesting; nowadays it is beneath the dignity of a student. Thus we have an interesting example of the changing value of subjects in medical education, of which we are rather apt to lose sight.

Even with all this variety of subjects the lectures were considered to require a little spice, as we find that the demonstration of a monster was sometimes added as a special attraction. John Hunter was very interested in monsters, and recognized that they fell into different classes; he also knew that the prenatal period was a history of ancestors.

When Hunter became a surgeon to St. George's Hospital he tried to arrange that lectures should be delivered at the hospital to the pupils and apprentices. He was strenuously opposed by his colleagues, who asserted that lectures were of little use, thus expressing an opinion which, after a hundred and fifty years, is again being freely stated. Hunter, however, hinted that the reason lay in another direction, and that the real cause of the opposition was the fear of the staff to expose their own ignorance. He carried the battle further and accused his colleagues of taking money from their pupils and apprentices and doing nothing to earn it.

This effort of Hunter, though at first abortive, helped the movement that was gaining ground to take medical education out of private hands and establish it at the great hospitals. He appears at last to have converted his colleagues, as in 1793 we find that they complained that the students had to go for their anatomy to Windmill Street, for their midwifery to Golden Square, for their chemistry, materia medica, and practice of physic to Leicester Fields, and thus lost considerable time. The recognition of the disadvantage of spreading medical education over several institutions is interesting in the light of developments that are taking place to-day.

EDUCATION IN 1760 AND 1934

Hunter never served an apprenticeship, so that his education may be described as less controlled than was usual even at that time. The instruction he received seems very fragmentary and discontinuous; in fact it might almost be described as an interlude to his work in his brother's school. One must remember, however, that in this school Hunter must have been brought into contact with many men and listened to their opinions and conversation. He thus was undergoing all the time a type of education that was really suitable to a man who was receptive, independent, and capable of being his own tutor. Some might take the view that Hunter succeeded in spite of his disadvantages, but to me it seems more the truth that the method of education suited the man.

Although the length of medical education was not dissimilar to that of the present day the circumstance of that education was very different. On the one hand we have an education where everything depended on the student's own perseverance, receptiveness, and determination; no ordered course of study; the man chose his own teachers and hospitals, and very often went abroad for a time. At the present time all is ordered and ordained. First of all a certain standard of general education is

demanding; then a course in which the subjects, the sequence in which they are to be taken, and the length of time devoted to each, are accurately defined, even in some cases to a matter of hours. There are signs, too, that there will be further subdivisions of this time, so that in the end there will be but little opportunity for self-education, mental digestion, or reflection. In fact, we are moving away from the academic and to trade-school ideas of education. It seems also possible that even after graduation or qualification the curriculum will still maintain its grip upon the individual to the time of his death.

A short while ago, when the increasing complexity of subjects demanded more time, and it was evident that the proportion of man's life devoted to medical education could not be increased, an attack was made on the time usually given to general education in the secondary schools. To judge by the ability of many students to put their ideas clearly and succinctly on paper, and remembering Hunter's defect, this seems a mistaken policy and that it would be wiser to let the schoolmaster conduct his own business in his own way.

No one will deny that medical education has benefited by the guidance of a central body. On the other hand, a common curriculum has some disadvantages. It is a compromise and, as such, has been and probably always will be a subject of criticism. It tends to produce a sameness in the schools and universities. It takes no heed of individuals.

It is possible that, in the desire to improve the standard of medical education, we have gone too far in centralization of control. A common curriculum means that no one education authority is doing what it really desires or believes best. Would it not be better to allow greater discretion so that individual schools could develop different characteristics?

WAR PERIOD

Hunter resigned his house-surgeonship at St. George's in 1756, apparently on account of ill-health. In 1759 he had inflammation of the lungs at a time when he was studying the lymphatic system. In 1760 he was appointed staff surgeon in the Army, and in 1761 sailed for Belleisle as surgeon on the staff. The reason of his going is not clear; probably it was a question of health or money rather than of adventure. He took part in the capture of the island and in the bloodless campaign in Portugal in the following year.

The total wounded were about 500, and, as the care of these was divided among the surgeons of the expedition, the number that came under Hunter's charge must have been moderate. In fact, we find that he soon had spare time and spent this studying "life" or "animal economy," and later on in Portugal he made observations on geology.

He arrived in Belleisle with some definite opinions as to the proper way to treat wounds, though whence he had acquired that knowledge is not clear. He lost little time in expressing disapprobation of his colleagues' treatment as well as of his colleagues themselves. Whether this outburst was the result of Hunter's rather irritable nature or of an attempt to assert himself, or whether it was justified, it serves to remind us that the war of 1914 was similar to the war of 1761, in that it was productive of criticism of one's colleagues.

Hunter prepared nothing about his war experiences for publication until many years had passed, thus showing at all events a remarkable literary continence for a surgeon who had seen active service. This work, which was not published until 1794, in the year following his death, states that the war had given him the opportunity of studying inflammation, about which he says he had constantly thought during the years which had elapsed.

If one substitutes "infection" for "inflammation" the problem that interested Hunter and the surgeons in the Great War was remarkably similar. Even to the end of the Great War the surgeon was without the means of combating established infection, though by the rough-and-ready way of excising the wound while still only contaminated he succeeded in preventing infection.

This pamphlet, like much of Hunter's writing, is a difficult document to read and to understand. One wonders why it never saw the light till so many years had elapsed. It contains nothing very arresting. I doubt if it was of great use to the surgeons that went to the war which was again starting, but it contains matter which is of interest to a generation that has known a great war. Just as in the Great War, amputations and the opening of wounds were exercising the minds of the surgeons.

It was debated whether an amputation should be done while the patient was "hot from the fight" or as a secondary procedure. Hunter supported the latter; it was given a trial, but eventually abandoned on account of a high mortality. The second point of dispute was whether the almost universal practice of opening all wounds should be continued. Hunter made the very sound remark that it should only be done if there were an object to be gained, but did not indicate clearly what this object was except to say that it was not necessary to search for foreign bodies. His influence apparently led to wounds being only opened when inflammation had set in. In the South African War the wounds were for the most part left untouched and did well. In the World War the opening of the wounds was the salvation of the soldier. From this it would appear that it is largely futile to enter upon any war with a fixed idea as to the proper treatment.

Hunter also made the interesting remark that there was nothing peculiar about war wounds; they were simply contused wounds. He expressed the opinion that it was a pity that they were regarded as something apart. The term "military surgery" is, I think, an unfortunate one. There is only one surgery—namely, the best that the time has produced. The only difference between surgery in peace and surgery in war is that in the peace you are enabled to do what is right and in war you have to strive, in adverse circumstances, to do what you know is right—that is, to approximate your practice to that of civil life.

EFFECT OF THE WAR ON SURGERY

It does not seem that Hunter's war had any material effect on the art of surgery or on the conditions under which it was practised. The number of surgeons, the number of wounded, were small, and Hunter published nothing at the time.

In like manner, turning to the war of our generation, I should say that it introduced little improvement in the practice of the art. It is true that it gave rise to much ingenuity in mechanical contrivances and that it popularized methods and apparatus already in use. It revived, for a time, the early days of the antiseptic period, and gave us a whole rainbow of coloured antiseptics, but finally proved the Listerian principle that the best way to combat infection was to prevent the lodgement in the body of the infecting agent.

A large number of doctors were taught a specialized kind of surgery, and, working under supervision, acquired considerable dexterity. This led to the idea that surgery was a matter of technique rather than of judgement. In the departments of medicine that affect surgery the war emphasized the value of prophylaxis in tetanus; it gave rise to the serum treatment of anaerobic infections, and

it demonstrated the value of restoring the blood volume and gave the birth of the chemical theory a shock.

One hundred and fifty years ago medical science was represented almost entirely by the physician, the surgeon, and the general practitioner. Since that date medicine has split into many branches, some concerned with the actual practice of the art and others with subjects more or less allied, and lastly, others that only here and there touch the healing art. Necessity and the stimulus of the war brought all these branches again into contact. This coming together again of the sciences which had grown out of medicine was the most important effect of the war; it was a union which, in a humble way, was represented in the person of John Hunter.

EFFECT OF WAR ON ENVIRONMENT OF SURGERY

Apart from the influence of the Great War on the art of surgery and the stimulus that it gave to research, it may have a great future effect on what may be called the machinery or administration of medicine. It emphasized what had obviously long been a fact—that a disease might be a mischance that could no longer be diagnosed and efficiently combated by the knowledge and skill of one individual. It demonstrated what could be done by co-ordination of effort, when there was a good directorate and the workers were willing to subordinate themselves. It led to the thought that if a great army could be so efficiently kept in health or treated when sick, why should not a nation in peace be kept in health and treated when sick by a similar organization? And lastly, the advantages of a salaried post over the continual struggle and anxieties of private practice began to loom large in the minds of many.

PERIOD OF PRACTICE

Hunter returned to England in 1763 and found himself with only his half pay and no private practice. From this time his life was one continual labour. Astley Cooper said of him: "He was the last in the laboratory or study at night, and the first there in the morning, allowing himself very little time for repose." The daily programme was something as follows. Up before five in the morning and engaged in dissection or study. Then the care of his private practice and attendance at the hospital. Dinner in the late afternoon, a short sleep followed by a lecture, and again work in the laboratory until the small hours of the morning.

Such a day would be beyond the powers of most men, but when a terrifying disease brought no cessation, one's admiration goes out to such determination and bravery. He was elected a Fellow of the Royal Society in 1767, and was appointed surgeon to St. George's Hospital and a member of the Corporation of Surgeons in 1768. About 1772 he abandoned anatomy and commenced his lectures on the theory and practice of surgery.

Hunter's life at this time was very similar to that of many young surgeons after the Great War, in that his life was divided between hospital duties, teaching, investigations, and what private practice came to hand. Hunter accomplished an immense amount of work, but it has to be remembered that hospital duties were very light, consisting only of one or two visits, and there was no teaching.

Although operations are not the whole of surgery, and less in those days than now, some idea of the amount of time demanded by a hospital appointment may be gathered from their number. I have no direct evidence of the number in Hunter's time, but a computation can be made by some figures quoted by Godlee in his life of Lister. According to these figures, in the era immediately preceding Lister the number of operations in the large

hospitals was about one a day, and about one-fifth of these were amputations. It is probable that they were less in Hunter's time.

It is interesting also to try and picture the scope of Hunter's surgery and the relative importance of the different subjects. Samuel Sharp, F.R.S., a pupil of Cheselden and a surgeon to Guy's Hospital, wrote a book on operative surgery which went through ten editions. The seventh edition, published in 1758, contains 288 pages. The first 54 pages are devoted to the treatment of wounds, inflammation, abscesses and ulcers; 20 pages to hernia; 69 pages to genito-urinary diseases, 43 of which are given up to lithotomy; 26 pages to the trepan; 20 pages to the eye; and 20 pages to amputations. The other subjects mentioned are empyema, encysted tumours, scirrhus of the breast, bronchotomy, extirpation of tonsils, nasal polypi, hare-lip, wry-neck, paracentesis, fistula-in-ano, aneurysm, inoculation. None of these receive more than nine pages. In Jonathan Bell's *System of Surgery*, published about the same time, one finds a very similar distribution of interest, but considerable space, almost a third, is devoted to injuries. This list shows the scope of surgery and where the chief interest lay. It also shows that the field was limited, although it included subjects now the domain of the specialist.

All that Hunter did and wrought and the admiration he aroused in his disciples is a matter of history. There is no doubt that his ideal of experimental investigation led eventually to modern medicine. One may, however, try and gauge what immediate effect his work produced on his art; was it at all comparable to that produced by Lister?

This can be done to a certain extent, at all events, by a study of the books and lectures in the years following his death.

Astley Cooper, the surgeon to Guy's Hospital, delivered a series of lectures at St. Thomas's Hospital. The date of these lectures must have been just before the year 1825, at which date Guy's and St. Thomas's dissolved partnership. A study of these lectures shows no great alteration in scope of surgery or in relative values, with one exception, and that was the adoption of the Hunterian ligature. Cooper affords striking evidence of the utility of this operation as he says in one of the lectures that formerly any patient who had been cured of a popliteal aneurysm could always gain a living by showing himself at a hospital, but now Mr. Hunter had deprived these lucky ones of their means of livelihood.

In 1847, South, a surgeon to St. Thomas's Hospital, brought out a carefully annotated edition of Chelius's *Surgery*. In this work Hunter is referred to again and again: in point of fact, in an index of subjects on which authorities are quoted the space devoted to Hunter far exceeds that given to any other person. A perusal of this book again fails to show any striking alteration in the interest of the surgeon. The early editions of Erichsen's *System of Surgery*, published about 1860, tell much the same tale, though the trend of thought is more modern.

The reason that surgery made no great bound after Hunter as it did in Lister's time can, I think, be explained. In the first place Hunter left behind him no one at all comparable to himself. In the second place a very large part of his work was the study of normal processes. In this connexion I may again quote Astley Cooper:

"Physiological knowledge is of the utmost importance to the professor of surgery; this gives you knowledge of the healthy functions, and thus enables you better to understand the nature of diseased action. This was the rock on which Hunter stood, admired by the wise and abused by the ignorant."

Though, as Cooper says, such knowledge is necessary for the proper understanding of disease it cannot in itself explain the departure from normal. Again, a great deal of Hunter's labours were purely biological, and could not be applied to medicine.

The problem of inflammation was one that interested Hunter more continually than any other, and was one that closely touched medicine. It was recognized that inflammation was the agent of repair, and therefore a process inherent in the individual, but the inflammation that arose apart from this was the crux that caused pages of involved language, and in the end remained unexplained.

There is a third reason. To one educated in the post-Listerian period it is almost inconceivable that a system of medicine unpeopled by bacteria, moulds, or protozoa, and unilluminated by a knowledge of the cellular nature of the body, could advance with rapidity. It is not to be expected, therefore, that the years that came immediately after Hunter would show a great forward movement. It seems as if medicine was awaiting the advent of Virchow to produce his cellular pathology, of Pasteur to solve the riddle of many diseases, of Lister to free the surgeon's hands, and of anaesthetics to diminish the fear of operations. It may be said that Hunter prepared the way to a new medicine rather than that he created a new world of surgery.

SPECIALISM

The problem of specialism and of the specialist, either from a practical or from an educational point of view, was not acute. Whether the physician or surgeon was to be considered as specialist depends on the individual point of view. The modern enthusiast for specialism would say that the general physician and surgeon are interesting relics of an honourable past; while the modern student, I expect, regards medicine, surgery, and obstetrics as natural divisions of medicine rather than specialties. The Ministry of Health regards them as the three bases of the healing art.

In those far-off days there were apothecaries, physicians, and surgeons. Some of the surgeons were possessed of special skill in lithotomy and couching for cataract, and to that extent were specialists, but, with these exceptions, the modern specialisms were still unseparated. The surgeons were taking their places alongside the physicians largely owing to the influence that Cheselden and Pott exerted, but even as late as 1825 we find Astley Cooper complaining of the interference of the physicians. This protest was caused by the prescription of a cathartic by a physician for a case of compound fracture which was under the care of Mr. Cooper. Obstetrics were passing from the midwives into the hands of those that confined themselves to that branch. It is interesting to note that there was a complaint that the instruction of students in this subject was defective.

Of late years specialism has grown apace. The old specialisms had their origin in the necessity for the possession of a special skill in the treatment of a special part. The later specialisms tended to be founded on special knowledge of a particular organ or a special disease, and the latest specialisms have origin in none of these things. Specialism has come to stay if only for the reason that the public demands it and the authorities that rule our education recognize it.

Specialism is a form of division of labour or of knowledge, and as such should lighten the burden of the student working for a qualification. Unfortunately the opposite is the case, and the advent of a new specialty means a new burden. This will continue until it is recognized that specialism is a post-graduate function. It can even be said that general practice is a specialty, not because medicine and surgery as practised in hospital

are different from those in general practice, but for the reason that the conditions under which they are practised are so different. It might be helpful if a hospital could arrange with some of its sons to take qualified students for a limited period as apprentices, thus returning, in a way, to an old custom. It is a curious thing that medicine is the only profession where a recently qualified man is spoken of as a finished product. In the Church you have to be a deacon before a bishop, and in the Army a subaltern before a colonel.

QUACKS AND QUACKERY

The definition is difficult, but everyone knows what is meant by a quack. Nothing since the days of the Hunters has altered so little as this question. William Hunter was apprehensive that he might be judged one; John Hunter had no objection to meet them, and on one occasion tried unsuccessfully to induce the owner to part with a secret prescription of an ointment. Lettsom waged a war against them, but was beaten in the end. Some were complete impostors; many worked in the realms now ruled over by specialists, treating a class of case which the doctors for one reason or another were unwilling to undertake.

The borderline between regular and irregular practice was ill defined, because there was no easy means of finding out whether or no a person had had a medical training. To distinguish a registered from an unregistered practitioner is now easy, but the facilities offered by the *Medical Register* have not in any way diminished the quacks; in fact, they are as flourishing as ever, and in some instances have copied the doctor and established a curriculum and a register. The high and low in the land seek their advice.

It is apparently impossible to persuade the public that the doctor is disinterested in his attitude toward irregular practice. Only recently I heard an individual high up in the academic world, who was discussing the subject, express the view that he had taught too many undergraduates to have any opinion of the value of the letters after a man's name. Under these circumstances would it not best become the profession to take its stand on the preamble of the Medical Act, and only ask to be clearly distinguished from those who have not had its medical training?

RESEARCH

Hunter demonstrated the fruitfulness of the experimental method, both in medicine and in biology: he also gave an example of the pitfalls that surround this method. If he were to come back and survey the field of medicine nothing would, I think, astonish him more than the position that research occupies to-day. He would wonder at the progress of medicine, but this feeling would be nothing to that inspired by the expansion of the effort to get forward and lay bare the secrets of Nature. In his time investigation was a simple matter. To-day, though there is still work to be done by a man with no special training, research, in many instances, requires a special education, a laborious study of the subject, and a skilfully thought-out plan.

The difference that exists between the times may perhaps be best brought out when we compare the rather simple investigations of Hunter's with those of Laidlaw and Dunkin for the *Field Distemper Fund*. These two investigators, starting with a disease of which the clinical symptoms had to be determined, worked for ten years, and expended £55,000 before they brought the disease under control. Research now works in a framework of careful organization. In fact, the organization has become a profession in itself. Here I would pay a tribute to Walter Fletcher, a man of great attainments, of far vision

and foresight, a man who devoted his great powers to help the worker.

In those days there was little or no aid for the worker, who was self-supporting, and had to look to his own pocket to provide the means for investigation or experiment. John Hunter spent his fortune on his museum. To-day, partly by private beneficence and partly from Government grants, there are large sums of money available which not only help the part-time worker, but support a small army of men who devote their whole time to their work.

Connected with research is the diffusion of knowledge. At the present time this is rapid, even to the ends of the earth; there are many professional societies and periodicals without end. In those days knowledge had to spread in the main by personal contact or communication. There was the Royal Society, but no exclusively medical associations except in Edinburgh and Paris. The naval surgeons seem to have been the first to supply the need in 1748. This society received original communications, which it bound and distributed to members. It also invited well-known people to lecture before it. Both William Hunter and Samuel Sharp did so. It is to its credit that it recognized a tendency to prolixity in medical matters, and instituted a censorship of the material it published.

In 1783 Hunter and Fordyce founded the Society for the Improvement of Medical and Chirurgical Knowledge, which lasted for a few years. This was followed in 1785 by the Lyceum Medicine Londinense, which met in the New Museum in Carter Street, and seems to have been in the nature of a research club. In 1773 Lettsom and a group of friends had founded the Medical Society of London, which, after many early struggles, has come down to our times.

THE FUTURE

It is impossible to stop the progress of Medicine, but progress may be helped or hindered by the conditions under which medicine works. In Hunter's time the profession consisted of individuals very loosely governed as regards education or conduct. It had very little contact with the State. The Elizabethan Poor Law was still in existence, and the State paid little heed either to preventive or to therapeutic medicine. To-day we find a highly organized profession; and organization, while it offers the possibility of resistance, also facilitates negotiations. The State controls a highly efficient preventive and therapeutic medical service; it is taking a greater and greater interest in education. There are some 20,000 doctors in receipt of public money. The war produced within the profession a considerable body of opinion favourable to a still greater control of medicine by the State. In the years to come we may be individuals linked together by a desire to stamp out or cure man's ills or we may be a swarm of workers in a national hive. In either case let us hope that the diligence, the curiosity, and the energy of John Hunter will be our guide.

The annual report of the National Institute for the Blind for the year 1932-3 is characterized by special attention to the excellent results obtained through special treatment and education. Illustrations are given of the extent to which independence in living can often be achieved, and there are many examples of the various activities which have an economic as well as a moral significance. The massage department records a very successful year, and there is now an advanced course in electrotherapeutics, comprising diathermy and high-frequency work. The new electrical clinic has assisted students training for the medical electricity examinations, and has been of great benefit to hospital patients.