verted into a hospital physician, whereby his private and public experience would unite in securing the best results? The position of a family adviser in a hospital surgeoncy has significant bearings. His private experience is medical, and gives him no assistance in the heavy responsibility of hospital duty; his hospital experience is surgical, and gives him no assistance in the heavy responsibility of family medical care. I do not wish to give undue importance to this "hospital difficulty"; but I cite it as another trouble that would be greatly lessened by the change which it is the chief purpose of this paper to urge. To diminish the out-patients to one-tenth, and, it may be, the in-patients to some extent, would facilitate the better organisation of hospital staffs—would render easier the adaptation of men to work.

Before closing, one word on the division of hospital beds. With in-patients as with out-patients, it is the duty of a hospital to do the most good to the greatest number of the gravest cases. These "gravest cases" are those which are most difficult to treat at home: accidents, operation cases, and cases needing exceptional surgical appliances. The gravest medical cases are less grave than these, if they can possibly be treated at home. If this proposition be true, the proportion of surgical beds, in the hospitals of large provincial towns at least, should be much larger than it is. The proportion ought not to be the same in all localities and under all circumstances: sometimes there should be two surgical beds to one medical; sometimes three, or four, or five to one. That pale faces with serious injuries should be seen on temporarily made up beds, while medical cases with comfortable beds, perhaps empty during the day, are enjoying their tobacco on the green, or adjusting their hair to the latest fashion, is an anomaly which fair-minded physicians themselves will help to remove. I am here presuming that the surgeons are so alive to just views on hospital relief and hospital economy that they do not permit their beds to be filled by cases which are not of that "gravest" character already described. If I err in this presumption, there is no ground for asking for a change in the distribution of beds.

It is to be hoped that the discussion on hospitals now going on, in which the public take a real interest, will not tend to lessen their income. There cannot be much fear of this. The closer the inquiry into hospitals, the more clearly seen are the benefits they confer on the sick poor. Let any large town be deprived of its medical charities, say for one month, and their need would be so keenly felt that they would start into existence again with double the number of subscribers and treble their income.

ON THE ETIOLOGY OF AURAL EXOSTOSES.

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THE following conclusions in regard to the origin of aural exostoses are the result of several years' observation of such cases. They are now very briefly laid before the profession, in order that further, and mayhap wider, observation on the part of others may prove or disprove their correctness. Those of my *confrères* in the practice of aural surgery who are familiar with such cases, and who also know the mystery that has hitherto surrounded the subject of aural exostoses, both in regard to origin and treatment, will find the subject more fully treated by me (illustrated by the kindness of my friend Dr. Foulis, Pathologist to the Glasgow Royal Infirmary) in the next issue of the *Archiv für Ohrenheilkunde*, to which I beg to refer them. Meantime, so far as my knowledge of the subject goes, I may claim to be the first observer who has given a rational explanation of the origin of an aural exostosis supported by clinical and pathological facts. These conclusions are as follows.

Premising that aural exostoses and hyperostoses are totally distinct affections in regard to origin, situation, form, and treatment, an aural exostosis is benign in origin, only to be found on the outer half of the external meatus, has its point of attachment *always* at the posterior wall, is pedunculated, and has its origin in the periosteum of the mastoid, close to the meatus.

The origin and development of an aural exostosis are as follows. At the outset, a subperiosteal abscess forms over the mastoid, and makes its way out into the meatus by way of the line of junction between the cartilaginous and osseous portions of that canal—sometimes even through the cartilage itself—discharging itself, and continuing to do so for some time. By-and-bye, highly vascular granular-like growths sprout from the opening of the abscess and go on increasing in size, while at the same time they are being gradually changed into bony tissue in their interior by the gradual conversion of

their cells into bone-cells. The final size of the osseous tumour, as well as its form, is determined by the original size and form of the granular-like growths. After complete ossification, no further increase takes place in the size of the tumour.

The treatment that suggests itself in such cases, and which I have found effectual, is as follows: in the early stages, removal of the soft growths, and freely laying open the abscess; in the latter, removal of the bony tumour by the *écraseur* (Wilde's) armed with a fine steel wire. In cases in which the tumour so fills the external meatus as to hinder the use of this instrument, I would recommend electrolysis of the tumour, as devised and successfully executed by Dr. Clark of Bristol, and reported by him in this JOURNAL in December 1873.

CASE OF ATHETOSIS.

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THE following case is a fair specimen of the condition described by Dr. Hammond under the name of *athetosis*. It resembles the third of the series published by Dr. Gowers in the last volume of the *Medico-Chirurgical Transactions*. The illustration is copied from a photograph; and, in order to take this, it was needful to steady the left hand.

Sarah B., aged 44 (in 1877), single, is one of a family of eight children, said to be healthy. She had some illness when between two and three years of age, and has ever since suffered from epileptic fits

and paralytic enfeeblement of the left side. She was admitted into the Cambridgeshire Asylum on March 8th, 1872, and was then described as imbecile from birth. Her condition since admission has not varied much, and may be described as follows.

She is rather tall and well nourished. Her hair is greyish, and she looks older than her years as recorded. Her head is well formed, and has a circumference of twenty-one inches and one-fifth. She has rather prominent eyeballs, has a lacrymal fistula of the right eye, and an external squint of the left. The face is drawn slightly towards the left; and the tongue, when protruded, also inclines to the same side. The left limbs are paralysed, and much contracted. The left arm is shrunken, and held spasmodically to the side. The left ulna measures half an inch less in length than the right, *i.e.*, from olecranon to styloid process; and the circumference of the left wrist is rather less than that of the right, and that of the left forearm at its largest diameter is rather less than that of the right. The left leg measures less than the right in length and circumference; the left foot is incurved, and the heel does not rest on the ground, but is permanently drawn upwards, as in talipes equinus. When placed upright, the patient stands with the left heel drawn up and the toes pointed in-