

## *News, Notes and Queries*

in 1661. Even as a student he made important anatomical discoveries. He taught botany in addition to anatomy, and founded a famous botanical museum in Uppsala. He also built an anatomical theatre which is still in use.

The name of Olaus Rudbeck can hardly be mentioned without recalling his work *Atlantica* and the fantastic theories propounded therein. This work certainly influenced Swedish foreign policy in a period when Sweden reached great power under the rule of Gustavus (II), Adolphus and Charles XII. Rudbeck's idea, like that of Archbishop Magnus, was that Sweden was the historical source of all the cultures of Europe, including those of Greece and Rome.

Professor Fåhræus's vivid account of this erratic genius made a great impression on all those who had the privilege of listening to it.

BERNHARD GETZ

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### ROBERT CHESSHER (1750-1831): AN ENGLISH PIONEER IN ORTHOPAEDICS

by BRUNO VALENTIN, M.D. (Rio de Janeiro)

THE name of Robert Chessher is one which deserves to be better known to all historians of medicine and especially to those who are interested in the history of orthopaedics. Although he is occasionally referred to as the inventor of the double inclined plane for the treatment of fractures of the femur and of 'Chessher's collar', it is now practically forgotten that he spent many years in active orthopaedic practice in his home town of Hinckley in Leicestershire. It was there that I was fortunate enough to find a comparatively unknown miniature portrait of Chessher which is here reproduced for the first time (Fig. 1). Nothing has been added to the scanty biographical information on Chessher which Muirhead Little published in 1928, and the reward of my own efforts has not been substantial, but by filling in the contemporary background of Chessher's achievements I hope that I may inspire more fortunate investigators to seek further details. When considering a man of whose personal life we know so little it is important that we can now see what he looked like. The painter of this miniature was a certain William Bass (1756-81), the brief outline of whose life is found in an obituary notice.

At Hinckley, Leicestershire, in his 26th year, of a deep decline, Mr. W. Bass. This worthy and ingenious young man, by profession a painter and engraver on tomb-stones, was for some time a lieutenant in the Leicestershire militia; but, having resigned his commission in the vain hope of recovering his health, lingered a few months, and dies sincerely regretted by all who knew him.

Robert Chessher was born at Hinckley in Leicestershire in 1750. His father died when he was still young and his mother married as her second husband a local surgeon named Whalley, to whom Robert was apprenticed. He early showed aptitude

for improving supports for fractured limbs, especially for the purpose of obviating contraction of muscles and skin. At eighteen he became a pupil of Dr. Thomas Denman, the celebrated London accoucheur, and he also attended the lectures of William Hunter and George Fordyce. After acting as house surgeon at the Middlesex Hospital he settled in practice at Hinckley. At first he worked as a general practitioner, but he soon limited his practice to the treatment of curvature of the spine and deformities of the limbs.

During Chessher's lifetime Hinckley must have been a Mecca for all those suffering from such diseases, for we learn from a letter written in 1810 by the father of a child treated by Chessher that there were at that time about 200 patients, mostly children, in Hinckley. The workshop (for orthopaedic apparatus, splints, etc.) with seven or eight workers was in his own house, so that every appliance was individually designed and made under his personal supervision. The head mechanic accompanied Chessher on his daily rounds. Scoliosis and contractions were treated with 'friction, motion and machine support'. The author of the letter deplors the fact that only rich patients could be treated, as the production of apparatus and splints was very expensive. 'Humanity must, therefore, regret the want of a proper establishment, from which the poor might often be restored to the use of their limbs, become happy in themselves, and useful members of society.'

We know something of Chessher's character from a contemporary, Edward Harrison (1766–1838), who practised in the Hinckley district and sometimes treated curvatures of the spine.

This gentleman introduced a method of his own, which was once so generally admired and adopted, that it gained for him a greater degree of reputation than has attached to any other individual in the same walk of practice. The little town of Hinckley, the theatre of his operations, was constantly filled with patients attracted to the spot by the character of Mr. Chessher. Nor were they, as many have insinuated, confined to the low and ignorant. Persons in the highest ranks of life, and the most eminent talents did not hesitate to commit their children to the professional skill of the eminent surgeon. Though I have no personal knowledge of Mr. Chessher, many opportunities have enabled me to become acquainted with his character. I can safely declare, that I have found him in every instance so correct in his conduct and respectable in his demeanours, that I have been led to think highly of his moral and gentlemanly dispositions.

Chessher died at the advanced age of seventy-nine on 31 January 1831. He was unmarried. He was buried in Hinckley Parish Church and the tombstone, with its inscription, is illustrated in Little's account of Chessher.

At this time in England orthopaedic mechanics were at a high level, as can be seen from the numerous books of such masters as Timothy Sheldrake, 'truss-maker to the Westminster Hospital and Mary-le-Bone Infirmary', Philip Jones, and later Bigg (several of that name) and Roth (also several). The names should also be mentioned of those mechanics who worked with Chessher: first of all he was assisted by one Reeves who put his ideas into practice, and later by John (and then Morris) Felton.

#### *Chessher's Work*

Since Chessher left no published work we have to go to the accounts of his contemporaries for an idea of his work. From these sources we find that his achievements fall into three divisions:

1. Invention of the double inclined plane for the treatment of femur fractures.

Percival Pott (1713–88) had, for fractures of the lower extremities, adopted the moderately flexed position as his treatment principle instead of the method previously used of the fully stretched position; because of the semi-relaxation of the muscles the setting of the fractured bone became easier. Following this principle, Chessher had before 1790 already constructed the double inclined splint for the treatment of fractures of the femur which quickly became generally adopted. Muirhead Little has given us an 'Extract from the minute book of the Medical and Chirurgical Society London 8th April 1828', which gives us a clear picture of this splint. 'Case of Fracture of the Thigh with a description of the means of support. By Robert Chessher Esqu. The Machine consisted of two inclined planes corresponding in length with the thigh and leg, and with a joint between them. There was at one end an excavation to receive the pelvis, so that the thighs were supported through their whole length.'

2. 'Chessher's Collar'.

'Chessher's Collar' for the treatment of curvatures of the spine is a combination of two methods, namely the stretching of the spinal column, and its support with some kind of apparatus. The attempt to obtain an improvement by stretching in a case of spinal curvature caused by scoliosis is ages old. There is a reference to it in the Hippocratic treatise *On Joints* and in Francis Glisson's work *De rachitide* (1650) there is accurately described the method of suspending the patient several times a day, using the weight of the body to straighten the curved spine ('artificialis corporis suspensio'). This sling or suspension apparatus of Glisson's (the French *Escarpolette anglaise*) was the first device of its kind and formed a part of many later appliances for the treatment of scoliosis. To describe in more detail the further development of this principle or to investigate treatment with this apparatus would be outside the limits of this article (see Valentin, 1957). We need only refer here to Erasmus Darwin's (1731–1802) *Zoonomia* as it can be assumed that this work was known to Chessher. There Darwin makes the following observation: 'Young persons when nicely measured, are found to be half an inch higher in the morning than at night; as is well known to those, who enlist very young men for soldiers. This is owing to the cartilages between the bones of the back becoming compressed by the weight of the head and shoulders on them during the day.' A further extract from the same period may be quoted here from the then widely known and often quoted *System of Surgery* by Benjamin Bell (1749–1806), who says: 'In all distortions of the spine, it is an object of the first importance to support the head and shoulders. If this be not duly attended to, the weight of the head tends almost constantly to increase the disorder.' These two passages plainly refer to 'Chessher's Collar', as can be seen from the following.

Through the writings of two contemporaries we have an accurate knowledge of the construction of this appliance and also of Chessher's general methods of treatment. These are John Shaw (1792–1827), the brother-in-law of Charles Bell (1774–1842), and the Edward Harrison mentioned above. Shaw knew Chessher personally, and in his three authoritative books (1823, 1825 and 1827) and especially in his masterly *Engravings illustrative of a work on the nature and treatment of the distortions to which the spine and the bones of the chest are subject* (1824) he has left us illustrations (drawn by Landseer) and descriptions of 'Chessher's Collar' (Fig. 2). 'The patient is drawn up by a cord over pulleys, previously to the application of the instrument. . . . The objects generally proposed to be attained by the application of such machines are . . . to stretch the spine when it is curved; to keep it stretched; and finally, to



**Fig. 1**

**ROBERT CHESSHER**  
at the age of about thirty

*Miniature painted by William Bass (1756–81) in the Hinckley Public Library.*

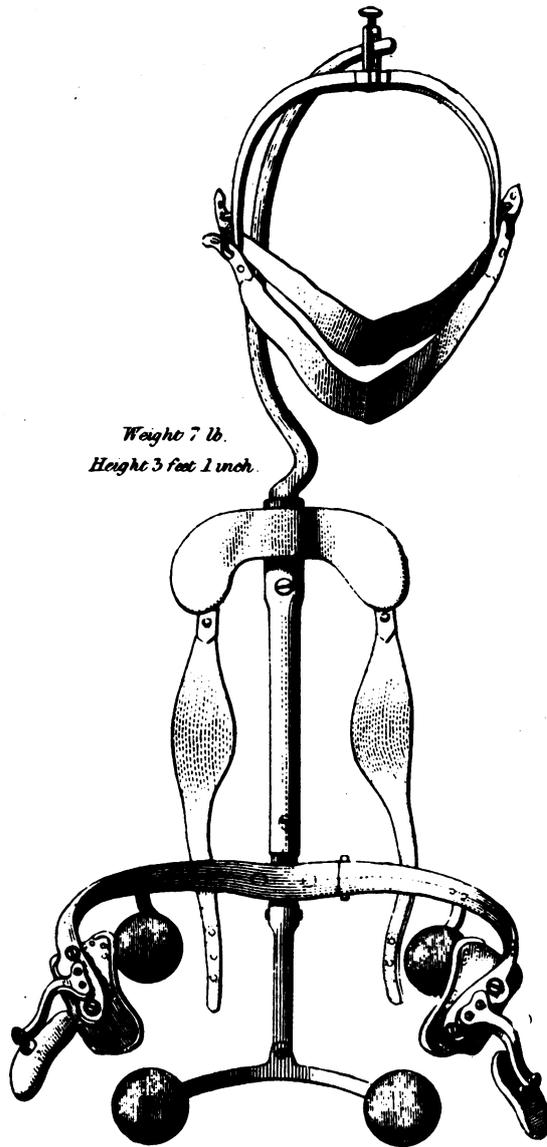


Fig. 2  
Chessher's Collar. From John Shaw's  
Engravings. 1824, Plate VI, Fig. 2.

remove the cause or source of the distortion.' Although agreeing essentially with Chessher's work, Shaw rejected the unorthodox ideas on pathological anatomy on which it was based and so introduced his own methods.

Harrison's book appeared at about the same time (1827). In his practice in the neighbourhood of Hinckley he often had occasion to examine patients who had been treated by Chessher. He gives in great detail (10 pages) the case-history of a woman who had gone to Hinckley for treatment and ends by rejecting entirely the methods practised there. 'I have been consulted within the last few years by more than a score of Mr. Chessher's disappointed patients, and received a confirmatory account from each of them. . . . I am inclined to believe Mr. C.'s plan has never succeeded in removing one case of considerable deformity. . . . The process adapted by Mr. Chessher has a direct tendency to injure the frame, and increase the disorder which it was intended to relieve.'

It is worth remarking in connection with both of these dissenting critics that, after reading the books of Shaw and Harrison, one is in no way convinced that they were any more successful than Chessher in their treatment of scoliosis. Unfortunately we have not progressed much further in this sphere of orthopaedic therapy than those physicians who must soon have realized that one can stretch a young person for a year by different methods without curing the scoliosis. Hoffa's words of 1897 still apply today: 'In my opinion the major problem of orthopaedics in the future lies in the treatment of scoliosis, and it must therefore be our earnest endeavour to find ways and means to combat scoliosis successfully.'

### 3. Establishment of the first orthopaedic institute in England.

The only document known to me which gives particulars of Chessher's institute is the one already mentioned, the letter signed 'D.', and published in 1810. The writer begins his description with a reference to the widely read book of William Coxe, *Travels in Switzerland*, which appeared in four editions between 1789 and 1801, and was translated into several languages. It contains a detailed account of the first orthopaedic institute in the world, which was founded in 1780 in Orbe (Canton de Vaud) by Jean André Venel (1740-91). A further similarity between Venel and Chessher was that their principle of treatment was to straighten a crooked body not by forcible extension but by constant gentle pressure. So writes Coxe of Venel, and 'D.' says of Chessher: 'Force formed no part of Mr. Chessher's system.' He goes on to compare Venel and Chessher: and finds much resemblance between them.

It may be that the example at Orbe served as an inspiration and model for Chessher, and that he was induced by the passage in Coxe's book to devote himself entirely to orthopaedics and to found in his home town an orthopaedic institute on the lines of the one at Orbe. Even as most of the orthopaedic institutes on the Continent after 1800 sooner or later closed their doors, mostly on the death of the founder, so it was with the establishment at Hinckley. After Chessher's death in 1831 Charles Ridley took over its direction. 'The very valuable collection of anatomical preparations, with his medical books and machinery, he bequeathed to Mr. Ridley, the gentleman whom he appointed to succeed him, and who now follows the profession at Hinckley.' Moreover, the mechanic, Felton, continued working independently for a short time in Hinckley. 'After Dr. Chessher's death his mechanic (now a Morris Felton) continued to live and practice on his own account, but in 1839 he emigrated to Australia.'

Although only seven years elapsed between Chessher's death and the founding of a second orthopaedic institute in England, I can find no connection between them.

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That is, I have found no evidence that William John Little (1810–94) had taken Chessher's work as a model for the 'Infirmity for the Cure of Club Foot and other Contractures' founded by him in Bloomsbury Square, London, in 1838; or even that Chessher's name was known to him. Neither was Chessher mentioned in his dissertation *Symbolae ad talipedem varum cognoscendum* (Berlin, 1837) or in the *Treatise on the nature of Club-foot* (London, 1839) which was published shortly afterwards, although in both works Little reported his own case-history for which he had consulted many doctors in England. It can be assumed with greater certainty that the inspiration for his own idea came to him through his association with Georg Friedrich Louis Stromeyer (1804–76), for on 6 July 1836 he was operated on for a paralytic club foot in Stromeyer's orthopaedic establishment in Hanover with excellent results. Earlier he had taken the advice of Jacques Mathieu Delpech (1777–1832), who was the founder and director of a well-designed model orthopaedic institute just outside Montpellier.

From Little's establishment in 1845 emerged the Royal Orthopaedic Hospital, and in 1905 through the amalgamation of two hospitals, to which in 1908 was joined a third, the Royal National Orthopaedic Hospital. This institution, now in Great Portland Street, is one of the few existing orthopaedic hospitals with an unbroken tradition, although it has occupied several different sites.

Although it has been possible to throw some fresh light on Chessher and the orthopaedic practice of his day, it will be seen that much remains to be discovered about Chessher's work and especially about the orthopaedic institute which he established at Hinckley. This article will have served its purpose if it stimulates others to search the archives for additional material concerning the man who must be regarded as a pioneer in English orthopaedics, Robert Chessher.

### ACKNOWLEDGEMENTS

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### MEDICAL PAPERS IN THE TRANSACTIONS OF THE ROYAL SOCIETY OF EDINBURGH

DR. DOUGLAS GUTHRIE, Curator of the Library and Museum of the Royal Society of Edinburgh, has contributed to the 1958 issue of the Society's *Year Book* a paper on 'Medical and Literary Contributions to the Transactions of the Royal Society of Edinburgh, 1783 to 1900', which emphasizes the extraordinary versatility that characterized so many of the medical men of the eighteenth and nineteenth centuries. A Society for the Improvement of Medical Knowledge had been founded at Edinburgh by Alexander Monro, *primus*, in 1731, and a second society—the Philosophical Society—was established in 1739. All members of the Philosophical Society became original Fellows of the Royal Society of Edinburgh on its foundation in 1783. The Royal Society consisted originally of two classes, Physical and Literary, which met separately. The literary interest was quite marked in the early years, but after a time the Society became predominantly, but never exclusively, scientific.

The Edinburgh Society, like its London counterpart, owed much to the medical graduates who constituted a very high proportion of its membership, and papers of medical or quasi-medical interest occupy a prominent place in its *Transactions*. Several of the early papers contributed by medical men dealt, however, with subjects far removed from medicine. Thus the first volume of the *Transactions* contained Dr. John Hutton's classical paper on a 'Theory of the Earth', and we find Professor James Gregory, of powder fame, writing on 'The Theory of the Moods of Verbs'. To offset these theoretical and seemingly 'dry' subjects we have Dr. John Grieve's paper entitled 'An Account of making a Wine, called by the Tartars *Koumiss*' and one on 'The Distillation of Ardent Spirits from Carrots' by Dr. Hunter of York. Dr. Guthrie refers to a number of papers of direct medical, anatomical or physiological interest by such famous men as William Pulteney Alison, Sir Charles Bell, Alexander Monro, *secundus*, John Davy, John Goodsir, J. Hughes Bennett, Sir Robert Christison, J. Matthews Duncan, Sir James Young Simpson, Sir Thomas Fraser and Lord Lister. Many of these contributions are still regarded as classics in their particular fields. The