was no doubt produced by the clot acting as a foreign body. There was not a trace of tubercular or other deposit to be found in either lung. There was general anasarca.

On February 15th, 1872, I attended a young woman aged 23, who had suffered, when about fifteen years of age, from a severe attack of rheumatic fever with endocarditis. This had left behind chronic mitral regurgitant disease, in consequence of which she had also suffered ever since from chronic bronchitis, which was always worse in winter. She now had a serious attack of hæmoptysis, brought on by nursing a baby. The cough was severe. The quantity of blood brought up was great. The pulse was exceedingly weak, about 95 per minute. There was a loud systolic mitral murmur to be heard, and the lower part of the left lung was dull. The cough, difficulty of breathing, and expectoration of blood continued, and on the nineteenth day the patient died.

On examining the heart, both tongues of the mitral valve were thickened and irregular. The left heart was dilated and hypertrophied. Both lungs were dark and slightly oedematous; the left lower lobe was solid, in some parts almost black; the tubes were filled with blood, and pieces of the lung sank in water. The other organs were healthy.

The first patient suffered from bronchitis; but this was aggravated by the much dilated, flabby, and degenerated heart, which could not with sufficient force pump the blood onward from the left ventricle, and thereby produced engorgement of both lungs, the blood-vessels of which had no doubt undergone fatty changes, and were ready at any time, if the patient underwent severe exertion, to give way. Again, in the lower part of the right lung, a clot acted as a foreign body, and set up inflammation all around. The commencement of inflammatory action was no doubt coincident with the sudden increase of the heat and rising of the pulse. Here we see the necessity there is for us, after lung-hæmorrhage, carefully to watch the pulse and temperature daily, which will surely indicate the setting up of inflammatory action, the products of which, combined with the clot, are apt, by mutual pressure, ultimately to end in destructive caseation and formation of a cavity.

In the second case, the hæmorrhage was no doubt predisposed to, not by a weakened state of the heart, but by the leakage through the mitral opening. The sudden hæmorrhage was immediately produced by severe exertion; but the tendency thereto was present before. The pulmonary, unlike other veins, being destitute of valves, readily permit of regurgitation into the lung in cases of mitral-valve disease; hence the engorgement is chronic; and the walls of the blood-vessels, owing to the pressure upon them produced by the within contained blood, become weak and more apt to give way when there is the slightest exertion undergone by the patient.

THERAPEUTIC NOTES, WITH ESPECIAL REFERENCE TO THE TREATMENT OF PHTHISIS BY CHLORIDE OF CALCIUM.*

By JAMES SAWYER, M.D.Lond., M.R.C.P.,

Physician to the Queen's Hospital, and Professor of Materia Medica and Therapeutics in the Queen's College, Birmingham.

A GREAT deal of the art of therapeutics as it is practised amongst us is unwritten. We are sometimes shy about telling what we do for our patients, because we have not courage to brave the risk of being thought common-place. Useful as are our meetings, I believe their profit would be much increased if members would more frequently bring forward and compare their therapeutic experiences. Those of us who are in earnest and who believe that therapeutic art—an art which includes, but is much more than, the administration of combinations of the materia medica—can powerfully modify morbid processes and can powerfully aid the *vis medicatrix natura*, and who think of what we do, have done, have not done, and shall do for our patients, must be constantly arriving at conclusions, as the result of observation in our own practices, which modify, confirm, correct, extend or suggest extensions of what I may call our therapeutic conduct. These conclusions may not be able to bear the test of an exhaustive logical scrutiny; perhaps they are no less true, perhaps they are not more true, than John Wesley's belief that sulphur did his rheumatism good (Wesley was probably right in his opinion, notwithstanding the ridicule of Mill, and that grand logician's brilliant exposition of the strict logical limitations of a therapeutic inference); but if these conclusions, which we must be constantly forming for ourselves, are accepted by each of us as reasonable

and responsible men as guides to our therapeutic action, they are as worthy of communication to our brethren, and I believe they are as interesting to them as the inspection of a rare case with striking objective manifestations, the demonstration of a pathological specimen, the description of a new operation, the exhibition of an ingenious instrument, or an elaboration of surgical statistics.

Have we a remedy for phthisis? We now know that the term chronic pulmonary phthisis includes a variety of pathological conditions and a variety of textural lesions in the lungs which have long been recognised as distinct, which recent research has done much to unravel, and about which we may still expect to learn more. We know the differing clinical and pathological courses of tubercular phthisis, unresolved lobar pneumonia, chronic catarrhal lobular pneumonia, and pulmonary cirrhosis. All these are included in the generic name phthisis. When I say have we a remedy for phthisis? I mean, have we a remedy for this allied group of conditions, due to varying pathological changes, but marked in common by progressive wasting of the body, by progressing asthenia, by progressing diminution of respiratory capacity, and by fever of a hectic type. Every case of phthisis requires special study, and can be treated by no rule-of-thumb practice because it is phthisis. In one case anæmia is prominent and calls for iron, perhaps for arsenic; in another, continued but small hæmoptysis calls for ergot or hamamelis; in another, a racking and frequent cough calls for opium, morphia, or codeia; in another, dyspepsia calls for alkalies or acids, or bitters, or pepsine; in another, nervous unrest calls for bromides; in another, laryngeal troubles call for special local medication; in another, we have to aim at controlling excessive sweating or checking an exhausting diarrhoea. Apart from these and other particulars, I suppose we are all agreed that cod-liver oil, given alone, or variously combined with other agents which tend to promote its assimilation, as with ether, as suggested by Dr. Foster, stands at the head of remedies calculated to promote the general nutrition of the phthisical. Have we any other general remedy? For a long time I trusted to syrup of the iodide of iron. This I gave up for a mixture of hypophosphites and iron—five grains of hypophosphite of lime, ten grains of hypophosphite of soda, and fifteen minims of syrup of the phosphate of iron, for a dose. This is a good combination, and I still use it. But chloride of calcium is my favourite drug. I have used it for some years in hospital and private practice, and I believe with great advantage. Perhaps you will say, Do you give it alone? I do not. I give it with cod-liver oil, or with cod-liver oil emulsion, or with morphia, or with ergot; but my general impression is, *quantum valet*, that I get better results with chloride of calcium with these combinations than I do with anything else in the same combinations. My attention was called to the value of chloride of calcium in phthisis by a paper in one of our medical journals, wherein it was stated that the drug was much used by the late Dr. Warburton Begbie. Scarcely mentioned, if noticed at all, in books on drugs, chloride of calcium has an old repute for the cure of strumous glandular swellings. In phthisis, I give ten grains dissolved in a drachm of water and mixed with a drachm of glycerine, in a wine-glassful of milk twice daily, immediately after meals. I think it tends to check night-sweats, to cause increase of weight, and to dry up pulmonary lesions. Of course I do not maintain it does these things in all cases. What I have stated are general conclusions, open, I am aware, to objection on the ground of their insufficient logical basis, but conclusions which have been and are for me grounds of therapeutic conduct. In prescribing chloride of calcium, we must be careful to write the name of the drug distinctly and in full, in order to avoid an error from which one of my patients suffered, namely, the substitution of "chloride of lime".

ON CHAIR-SUPPORTS IN SPINAL CURVATURES.*

By CHARLES STEELE, F.R.C.S.,

Late Senior Surgeon of the Bristol Royal Infirmary, Clifton.

WHEN Dr. Sayre brought before the profession in England his method of treating spinal curvatures, I was strongly impressed with the value of the principles which he enunciated. My appreciation of the sound and practical character of the system has been deepened by a careful study of his valuable works, and also by the success which, in several cases in my practice, has attended the adoption of his plan of first setting (if I may use the term) the diseased or displaced bones, and then keeping them in place with closely fitting and firm splints, which secures to the invalid the power of maintaining the erect position, and the remedial benefits of exercise and fresh air.

The plaster-of-Paris bandages, which alone were available for this

* Abstract of a paper read before the Birmingham and Midland Counties Branch.

* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Cork, August 1879.

purpose at first, I still use where close adjustment is requisite; but latterly I have been glad to avail myself of the advantages of dryness, lightness, and power of removal at will, which are afforded by Cocking's felt jackets.

I have, however, had to deal with some cases in which, from particular circumstances, the firm and constant support of jackets could not be borne; and with others in which, by early diagnosis and treatment, though they are suitable, their use may be avoided. And it is because I feel sure that many other surgeons must meet with similar cases, and have to devise means for their individual relief, that I venture to bring before this meeting a simple appliance which has proved itself capable of doing good service and of affording much comfort. It is that of adding to an ordinary easy or folding chair, supports for the axillæ, for every patient, and, where needed, a long rod to carry crossbar and straps to support the head also.

The first patient who led me to think of this appliance was a lady, aged 58, a sufferer for several years from increasing lateral curvature, which she had endeavoured, but in vain, to control by wearing an ordinary iron support. She complained principally of severe pain in her right iliac region, caused, I found, by the lower ribs, with every movement, rubbing against the crest of the ilium. When raised by towels passed under the arms, the bones were liberated and the pain was relieved. She could not bear a plaster-of-Paris jacket, and I had axilla-rests fitted to the easy chair which she constantly used. She gladly availed herself of them, and derived so much benefit that she was able to take moderate out-door exercise, and improved in appetite, condition, and appearance. I have adopted the same means in other cases of somewhat similar nature, and with happy results.

In incipient angular curvature, I have found both the axilla-rests and the head-support of great service; and, in illustration of this statement, I will ask your kind attention while I detail the case of the young gentleman to whom the chair now before you belongs.

Master L—, aged 15, came under my care in October 1877. His family history was good; the only fact which could be questioned being that he had lost an uncle by lung-disease, of six months' duration, immediately following a blow on his chest from a cricket-ball. He was a youth of active disposition, fond, as he expressed himself, of jumping from heights and dropping from trees and other eminences. In 1874, in letting himself down from a bank eight feet or more high, he pitched perpendicularly on his head on a soft grassy bank. In the autumn of 1875, after rowing, he complained of severe headaches accompanied by great flushings, and preceded by pain in his neck; and, though he did not mention it till lately, the first thing he noticed wrong was a hot feeling between his shoulders. The same winter he walked three miles to and from skating, and had one severe fall flat on his back, but he thought his head got the worst of that. The headaches and flushings increased, with pallor and exhaustion, so that he lay down during the evenings. His back ached continually; he showed great excitability and general weakness, and was obliged to give up all study for a year, and spend his time lying down flat. He ate but little, slept badly, and had a perpetual cough and deafness. A year's rest did him good, and in 1877 he came to Clifton, and attended an excellent school as day boy, walking slowly a short distance to and from where he resided. He was able to sit up at school, but lay down directly he reached home, and spent his evening on his back, learning his lessons in that position. The slightest fatigue brought on his dreadful headaches, and all the time he patiently endured a hot burning pain in his back.

I saw him in October 1877 on account of a severe sore-throat (the cause of his deafness), and soon heard of his headaches, loss of appetite, cough, which was of a grunting character, and induced by going upstairs or other movement, and asthmatic breathing. He stooped. When I examined his back, I found marked tenderness upon percussion on the first, second, and third dorsal vertebrae, and also slight tenderness in the upper lumbar vertebrae. In both situations he suffered pain, but much more in the upper. Pressure on his head or shoulders intensified the pain, as also did dropping him on his heels when raised from the ground, and pressure laterally on the upper ribs; while raising him by his elbows resting on my hands, or raising him by his head, gave great relief. I subsequently examined his spine with a test-tube containing hot water; this could be borne everywhere except in the parts mentioned, and there acute pain was produced; while a test-tube containing ice and water gave relief in the tender parts. I enjoined strict avoidance of all exercise save the slow walk to and from school, and the prone position all the time he was at home, and prescribed a damp compress covered with oil-silk to the dorsal and lumbar vertebrae, and the syrup of lactophosphate of lime and iron internally. He improved a little for a time, and then began to lose ground. I explained to his aunt, with whom he lived, that he ought to wear a plaster-jacket with a jury-mast. But she asked if I could not suggest a simpler substitute.

To prove my assertion, I suspended him with the proper apparatus, directing him to express exactly the feelings he experienced from it. Directly his heels left the ground, he said, "Now that pain is quite gone from my back"; and when I let him down again, and his feet touched, he said, "Now that pain is come back again". I thought of a long curved iron rod to carry crossbar and head-straps, together with axilla supports to be added to his own folding chair; and his upholsterer fitted them. He immediately took to the chair, finding great comfort from its use, and sitting in it every minute he could during the day. All his symptoms improved forthwith, and, what is very remarkable, from the first day he used it he never had an attack of asthma. His headaches lessened, and for some time he has not had one. Last Christmas, he shot rabbits without any ill result. A few weeks ago, he went for his school outing several miles in a break, and did not suffer at all, though formerly any carriage exercise did him great harm. I lately examined his spine carefully, and could find nothing amiss; and now he is gratifying his long-felt heart's desire to become a doctor, by studying to pass the preliminary examination for the Fellowship of the Royal College of Surgeons of England.

I feel I am justified in saying that this was a case of slow inflammation of the upper dorsal vertebrae; that recovery by resolution has been brought about by the simple and unobservable use of this chair, which has at the same time allowed of the application of a local remedy, which has given comfort and been of service.

The chair explains itself. The points to be observed in constructing one are, that the axilla supports are long enough, slightly curved upwards, narrow, padded well above, and fixed to the wooden frame of the chair at exactly the same distance apart as the patient's axillæ are, and at such a height as to support the patient off the seat; the amount of support being easily regulated by the use of cushions. The strong curved iron rod for the head-support must be long enough to clear the head well, and notched on its upper surface in three places, that the ring of the crossbar may be moved at convenience. The chair is more comfortable when in use if the patient's legs are supported either on a leg-rest or on another chair.

This chair was fitted by Mr. Baker, of Messrs. Laverton, upholsterers, Bristol. The crossbar and head-straps are Mayer and Meltzer's; and the photograph, which shows all the construction, was taken by Mr. Guttenburg of Bristol.

CIRRHOSSIS OF THE LIVER IN AN INFANT THREE MONTHS OLD.

By THOMAS OLIVER, M.D.,

Physician to the Newcastle-upon-Tyne Infirmary.

ON November 13th, 1878, Mrs. M., a well-formed but somewhat cachectic-looking woman, brought her baby, which was three months old, to my house for consultation. The child in question was a well-developed female, with a peculiar sallow but by no means jaundiced appearance. Its belly, which was enlarged, measuring round the navel seventeen and a half inches, contained a little fluid. The child cried when pressure was made over the abdomen. The area of hepatic dullness measured in the line of the right nipple three and a half inches. Her stools were rather pale; and the mother informed me that the child frequently bled at the nose. There was no evidence of alcoholic intemperance on the part of either the father or the mother, nor could any evidence of syphilis be ascertained, either by careful inquiry of the parents or by an examination of the other children.

November 18th. The abdomen measured eighteen and a half inches. The child had bled a great deal from the nose. The superficial veins of the abdomen were prominent. The bowels had acted freely.

November 20th. The abdomen felt softer to-day; it measured seventeen inches. The child did not cry so much when touched. There was slight oedema of the face and feet.

November 23rd. The child had bled very freely at the nose since last report, and is much weaker.

November 30th. The abdomen measured fifteen and a half inches. The child had not bled at the nose for the last three days. The stools were very dark. The mother stated that the child kept crying night and day.

December 2nd. The child died to-day in a convulsion.

I made a *post mortem* examination on the afternoon of the day on which the child died. The fingers of both hands were firmly clenched. The lungs were healthy; the middle lobe of the right lung was congested. The heart, which was healthy, weighed one and a half ounces. The liver was very prominent, occupying about one-third of the abdomen; it weighed fifteen ounces and was pale. The kidneys, which were lobulated, seemed healthy; their capsule was removed with ease;