OPERATING CHAIR.

THERE is no part of the apparatus of the dentist of more importance to his success, than a good operating chair. To this particular, the professors of this country have not paid sufficient attention, most of them having nothing but a common arm chair, the use of which must, in many cases, be alike inconvenient to the operator, and fatiguing to the patient. The impropriety of placing the latter in the same position for every operation, is evident. If a patient, requiring one of the superior molares stopped, is placed in such a seat as would be proper for performing the same operation on a tooth in the lower jaw, the position of the head

must be a most painful one, especially if the operation should take up any considerable portion of time, which is often unavoidable. The patient probably does not complain; but his forbearance arises from his want of knowing that it is possible to have all the operations on the teeth performed, without his being placed in any position that is not perfectly easy, and as little productive of fatigue as a natural lounge. This, however, may be accomplished by the use of a chair constructed upon truly scientific principles; the parts so arranged that the whole may tend to promote the ease of the patient, and to facilitate the performance of every species of operation. Every dentist who is anxious to maintain his character, as an expert and elegant operator, will find it to his advantage to possess such a chair. It is, indeed, the duty of a professional man, to provide himself with every thing which is calculated to give ease to his patient, or to promote the success of his own operations; and he who wilfully neglects these important objects, deserves neither the confidence nor the fees of his patients.

Some few dentists have operating chairs, and I have seen several, made by different artists.

All, however, that have fallen under my notice, with the exception of that used by my friend Mr. Morel, manifested such a want of skill in their construction as rendered them of little utility. Their deficiencies arose from a single cause, namely, that the projectors and manufacturers not being dentists, had very indistinct notions of what was required; they were not aware of the various positions in which it is requisite to place the patient, and in consequence of their inadequate information, the chairs which they produced, were very inefficient substitutes for that perfect one which the dentist ought to possess. No manufacturer indeed, can be expected to make a suitable chair, except under the direction of a good dentist, who, combining with accurate theoretical principles, considerable professional experience, shall moreover have been in the habit of performing his operations, not in the slovenly way, which is too common, but in a neat and scientific manner. It is remarkable, that throughout all the works on the subject of the dentist's art, we find no notice of an operating chair, except in a late treatise, the author of which speaks of one, which he states to be as near perfection as

possible; but as he does not, by describing it, give us an opportunity of judging of its merit, it is in the situation of many other wonders, of which we have heard and read:—it is to us *vox et preterea nihil.*

In constructing an operating chair, three things should be principally kept in view:—*First*, the chair should afford the means of placing the patient in all the various positions which may be conducive to his ease, and the convenience of the operator.—*Secondly*, it should have attached to it all the more cumbrous articles which may be required in operating, and which cannot be held in the hand, or otherwise disposed of without inconvenience; all of which should be so arranged that they will be, as it were, dumb waiters upon the operator.—*Thirdly*, to ensure the firmness of the patient's position, an apparatus must be affixed, upon which the feet may rest, which should be capable of being accommodated to varying circumstances, as whether the patient is sitting high or low, or whether his legs are long or short.

It may be objected, that a chair with so much machinery is calculated to intimidate; that the

shifting of the different parts will occasion loss of time, and that there is a formality and parade about it which the generality of patients will dislike. I do not hesitate to confess, that at a former period, such was my own opinion ; it has yielded, however, to that which I am persuaded will produce conviction upon the mind of every unprejudiced professor—practical experience.

For some years I used nothing but a common arm chair, but I was so constantly encountering proofs of its inconvenience, both to myself and the patient, that I felt it my duty to construct a chair, better adapted to the purpose. Having done so, I can say with sincerity, that I have never ceased to blame myself for having so long neglected it.

If the chair is properly constructed, a very small portion of time is consumed in adjusting it; and as to the patients, although a little timidity is manifested by some, it is immediately dispelled by finding themselves in a position perfectly natural and easy, and which, however long maintained, does not become irksome.

In extracting teeth, (independent of the advantage to the operator,) the consciousness of an easy and firm position, inspires

the patient with a degree of confidence which, at a time when he is to make up his mind to submit to a painful operation, is invaluable.

I shall illustrate my notion of a good operating chair, by referring to my own. Without affirming it to be the best of its kind, I can confidently state, that having used it for some years, I have found it to possess almost every requisite qualification. I shall commence with the skeleton, and proceed through the various parts, and their uses.—The frame-work should be rather heavy; the feet firmly fastened to the floor; the arms and legs may be made as to pattern, according to the taste of the possessor, but the wood should be the best Spanish mahogany, rosewood, or some other heavy material, that it may be rendered solid and firm, capable of bearing the parts which are to be attached; the seat should be broad and roomy, at least 2 feet by 20 inches. This being a most important part, will be hereafter described more particularly The back should be nearly 4 feet in height, and moveable by hinges attached to the lower part of the frame-work of the seat; it should be capable of falling backwards, completely horizontal,

or of remaining at any angle which the operator may require: this latter point is attained by a piece of brass, formed in the segment of a circle, one end being attached to each side of the frame-work of the back-board, the other part being made to pass through the post of the arm of the chair. This piece of brass must be perforated with holes,at the distance of an inch from each other; a brass bolt passing through the post and through one of the holes, according to the angle required, will hold the back firmly. The position may be changed in a moment, by the simple removal of the bolt to any other hole, which will enable the operator to place the patient in every variety of position, from the perpendicular to the horizontal. This is particularly useful in cases of sudden fainting.

At about one foot from the top, the back of the chair should be divided, and made capable of falling down, by hinges. These hinges should be so constructed that their lower parts should not be fixed, but allowed to fall into sockets, so that the upper part of the back may, when required, be removed altogether. This moveable portion of the back should be retained, when put up, by two strong

brass snaps, which, by touching a spring attached to each, will allow it readily to fall down. On the left hand side of the chair should be placed a half oval flat cushion, stuffed to the shape of the head, and about a foot in circumference: this is for the patient's head to rest against, and should be capable of being raised or depressed by means of a brass rack or groove, through which the back part of the cushion should traverse, and for which purpose it should be provided with corresponding projections made of brass, the cushion being retained in any situation that may be required by means of a small spring and snap. Another of these flat cushions should be attached to the top of the chair, which should be capable of traversing from right to left, along the upper part of the chair: this upper cushion should also take off, and when occasion requires, should be affixed to the lower part of the back of the chair, when the upper and moveable part which falls down, is removed. It should further be capable of moving from or towards the operator.

When the whole back part of the chair is allowed to slope, which is almost always the

case, in a greater or less degree, the patient being seated, and leaning back, the shoulders and head alone would touch; the back and loins would therefore be without support. To remedy this, a large cushion should be placed between the patient's back, and the back of the chair; this cushion should be the height of the chair, at that part where it is separated. It should be about 20 inches in length, and 18 inches in breadth. It is requisite that this cushion should be most carefully made; it should be of leather, and very exactly stuffed to the shape of the back, that in whatever position the patient may sit or recline, it may be felt equally from the shoulders downwards. On the proper shape and stuffing of this cushion, depend much of the ease of the patient.

As all patients have not the same length of back, of course the head will not always rest in the same situation; to remedy this, the cushion should be no longer than will be necessary to reach the shoulders of a middle-sized man, and should be flat at the top, to admit of a smaller cushion the length of the breadth of the chair, of a triangular form, the anterior part being rounded. Two or three of these little

cushions should be provided of different depths, so that the patient's head may be placed in any position, from the perpendicular to the horizontal.

Many operations on the upper teeth require that the patient's head should be considerably above the operator; at least if much time is to be occupied in the operation, such a relative position will be found more agreeable to both parties. It is desirable therefore, in such cases, that the seat of the chair should be raised, in order that the head of the patient may be brought to its proper elevation. This may be done by extra cushions; but as there is some inconvenience attending such a method, it is much better to have the seat of the chair capable of being raised, by springs placed underneath it. Spiral springs may be so placed as to add very much to the comfort of the seat, and raise the patient at once to a proper height. This is accomplished by the cushion seat working in a rack in the posts of the chair, and being raised or depressed by a small lever under the chair. It is only for the operator, when he would wish the patient to sit lower, to press down the lever, and the little snaps in the

rack will retain at the desired point of depression. If, on the contrary, the patient requires elevating, the operator has only to take out the bolts which retain the seat in its depressed situation, and the power of the springs will cause it to rise. It will not be necessary for the patient to quit the chair, except in the case of a very heavy person.

When the seat rises, the back cushion which rests upon it, of course, rises also, affording, under all circumstances, the same convenient support to the back. When the patient is raised, the flat cushion against which the head is rested laterally, must also be raised, so that it may be exactly adapted to the situation of the head. From the arrangement of these cushions it will be found, that the head is always retained with steadiness in the exact situation required. The importance of this to the operator, need not be insisted on. Having described the situation of the patient's body and head, when seated in the operating chair, it next becomes requisite to describe the means by which the feet are made to rest with firmness and ease to the patient, throughout the various positions. When the patient's seat is raised, it is obvious,

that if no supports were provided for the legs, their position would be a most disagreeable one. To remedy this, a foot-stool or foot-board is provided, capable of being raised or depressed to any requisite degree of height, while the upper part, upon which rests the feet, is at all times upon the level. This stool is composed of three pieces of mahogany, of two feet in length, and 13 inches in breadth, the lower piece being shaped like an extremely shallow box, and capable of partially retaining the two upper pieces, which lie flat on each other: between each of the pieces is placed a double brass rack, acting in opposite directions. That between the upper and middle board enables the upper one to be elevated; but as this can only be effected at an angle, the front part being higher than the back, a similar rack must be placed between the middle and lower parts, which acts in the opposite direction, by allowing the posterior part to be raised. By this arrangement, the upper surface will, if required, always present a perfect plane, at whatever elevation it may be placed; or should it be more agreeable to the patient, it may be depressed or raised at either end, adverse to its opposite; thus, when the

patient is raised in the chair, the height of the footstool, and its position, may be regulated according to the length of the patient's legs. To give greater firmness to the feet, the upper surface of the footstool, at its anterior part, is provided with a triangular piece of wood, upon which the soles of the feet rest agreeably. The upper surface should be covered with soft carpeting. Although this footstool may from the description appear to be complicated, when viewed it will be found extremely simple, the alterations of its position being performed merely by raising or depressing the anterior parts of the upper board. Depressing will raise the back part, as the contrary operation will the front. The stool should be placed on rollers, and should run in two rods attached to the floor, that it may be pushed under the chair, when not required.

Connected with the chair are certain appurtenances which remain to be noticed. To the anterior extremity of the right arm is to be affixed a moveable table, of about a foot in circumference, capable of being turned in any direction. This is useful for the purpose of

placing an instrument, or any thing else required in operating. To the left arm is to be affixed a powerful mirror, also capable of being moved in any direction. In fixing artificial teeth, and in fact, for innumerable purposes, this mirror will be found useful, doing away with the necessity of the patient's either rising to look at a glass in the room, or holding one in his hand. In all operations requiring a candle, as in using the actual cautery and metallic cement, it is usual for the patient to hold it in his left hand. This is in all cases a clumsy expedient, and nothing can be conceived more awkward than to request a lady to perform such an office, especially when she is agitated by the anticipation of pain. Where a light is necessary, it is much better to have a lamp, or thick wax light, placed in a branch, the opposite end of which is attached to the left-hand side of the back of the operating chair. This branch should have a sufficient number of joints, that the lights may be placed in any situation, in front of the mouth, which the operator may require. This is far better than the former uncertain and ungraceful method.

In order that my chair may be better understood, I have given a plate, with the different parts affixed, as also the foot-board.—This, it will be observed, is pushed back a little, under the chair, to get the drawing within the octavo size.—*See the Frontispiece.*