

The Works of Plato. A new and literal version. Vol. V., containing *The Laws*. By George Burges, M.A. (Bohn's Classical Library.) H. G. Bohn.

THIS, the fifth volume of the translation of Plato, which Mr. Bohn, with commendable daring, has ventured on publishing, contains the important treatise on *The Laws*, which the student should take up after carefully going through the *Republic*. It was obviously composed many years subsequent to the composition of the *Republic*, and is interesting as containing Plato's more matured opinions on politics. In form it is the least ornate and least interesting of all his works. If it be possible for a translator to drive away the student, Mr. George Burges is the man. He's more repulsive than Taylor; for while quite as obscure, he is a worse writer, and his notes are perpetual offences.

How to see the British Museum in Four Visits. By W. Blanchard Jerrold. Bradbury and Evans.

MR. BLANCHARD JERROLD'S useful little book, *How to see the Great Exhibition in Four Visits*, obviously suggested a similar work on the more permanent subject of the British Museum. As a guide-book through that vast collection, it will be prized for the simplicity of its arrangement and the clearness of its style.

A Practical Treatise on the Diseases of the Lungs and Heart, including the Principles of Physical Diagnosis. By Walter Hayle Walshe, M.D. Taylor, Walton, and Maberly.

WE have been tempted to give an extended notice of this excellent work, but the fear of its being too exclusively professional has restrained us. To students we address this note. Dr. Walshe here describes the facts and principles of physical diagnosis in their applications to lungs, heart, and the larger vessels; the principles of inspection, mensuration, auscultation, and percussion. Having illustrated these with great minuteness and lucidity, he proceeds to an elaborate investigation of the symptoms, physical signs, diagnosis, and treatment, of the chief diseases of lungs, heart, and aorta. The book is a very valuable addition to pathological literature.

Homeopathy in 1861. Edited by J. Rutherford Russell, M.D. Groombridge and Sons.

THOSE interested in the squabbles of Old and Young Physic—of homeopathy and allopathy—will thank Dr. Russell for this amusing volume of papers illustrative of the position maintained by Young Physic. We have already, on more than one occasion, indicated our neutral position in the dispute, anxious as we are for free discussion of all matters.

Horses: their Varieties, Breeding, and Management, in Health and Disease. By D. H. Richardson. (Richardson's Rural Handbooks.) W. S. Orr and Co.

MR. MILBURN has revised Richardson's compact and very readable handbook on the breeding and management of horses. Harrison Weir has illustrated it; and Messrs. Orr offer it among their *Rural Handbooks* for one shilling!

The Upper Ten Thousand: Sketches of American Society. By a New Yorker. John W. Parker and Son.

THESE sketches, which originally appeared in the pleasant pages of *Fraser's Magazine*, deserved gathering into a volume, for they present a picture of American aristocratism more vivid and acceptable than any other work we have seen. We noticed them on their first appearance, and need only mention the fact of their separate publication.

Life Assurance: its Schemes, its Difficulties, and its Abuses. W. S. D. Bateman. John Chapman.

Para Bellum. Brief Suggestions on the subject of War and Invasion. John Chapman.

Bohn's Illustrated Library—Battles of the British Navy. By Joseph Allen. Vol. II. H. G. Bohn.

Bohn's Standard Library—The Principal Works and Remains of the Rev. Andrew Keller. H. G. Bohn.

Bohn's Scientific Library—Cosmos: a Sketch of the Physical Description of the Universe. H. G. Bohn.

Bohn's Classical Library—Orations of Marcus Tullius Cicero. By C. D. Yonge. H. G. Bohn.

Canada, as it was, is, and may be. By Sir R. H. Bouchette. 2 vols. Callaghan and Co.

Use and Abuse, or, Right and Wrong in relation to Labour, Capital, Machinery, and Land. Ward and Co.

L'Esprit des Savants et des Papes. Nos. I., II., and III. Partridge and Oakley.

Lenax, or, the Silent Woman. By the Author of "King's Cope," &c. 3 vols. Smith, Elder, and Co.

Portfolio.

We should do our utmost to encourage the Beautiful, for the Useful encourages itself.—GOSWELL.

THE HAYTHORNE PAPERS.

No. II.—THE DEVELOPMENT HYPOTHESIS.

IN a debate upon the development hypothesis, lately narrated to me by a friend, one of the disputants was described as arguing that, as in all our experience we know of no such phenomenon as the transmutation of species, it is unphilosophical to assume that transmutation of species ever takes place. Had I been present, I think that, passing over his assertion, which is open to criticism, I should have replied that, as in all our experience we have never known a species created, it was, by his own showing, unphilosophical to assume that any species ever had been created.

Those who cavalierly reject the theory of Lamarck and his followers, as not adequately supported by facts, seem quite to forget that their own theory is supported by no facts at all. Like the majority of men who are born to a given belief, they demand the most rigorous proof of any adverse doctrine, but assume that their own doctrine needs none. Here we find scattered over the globe vegetable and animal organisms numbering, of the one kind (according to Humboldt), some 320,000 species, and of the other, if we include insects, some two millions of species (see Carpenter); and if to these we add the numbers of animal and vegetable species that have become extinct (bearing in mind how geological records prove that, from the earliest appearance of life down to the present time, different species have been successively replacing each other, so that the world's Flora and Fauna have completely changed many times over), we may safely estimate the number of species that have existed, and are existing on the earth, at

not less than ten millions. Well, which is the most rational theory about these ten millions of species? Is it most likely that there have been ten millions of special creations? or is it most likely that by continual modifications, due to change of circumstances, ten millions of varieties may have been produced, as varieties are being produced still? One of the two theories must be adopted. Which is most countenanced by facts?

Doubtless many will reply that they can more easily conceive ten millions of special creations to have taken place, than they can conceive that ten millions of varieties have been produced by the process of perpetual modification. All such, however, will find, on candid inquiry, that they are under an illusion. This is one of the many cases in which men do not really believe, but rather believe they believe. It is not that they can not conceive ten millions of special creations to have taken place, but that they think they can do so. A little careful introspection will show them that they have never yet realized to themselves the creation of even one species. If they have formed a definite conception of the process, they will be able to answer such questions as—How is a new species constructed? and How does it make its appearance? Is it thrown down from the clouds? or must we hold to the notion that it struggles up out of the ground? Do its limbs and viscera rush together from all the points of the compass? or must we receive some such old Hebrew notion as, that God goes into a forest-cavern, and there takes clay and moulds a new creature? If they say that a new creature is produced in none of these modes, which are too absurd to be believed, then they are required to describe the mode in which a new creature may be produced—a mode which does not seem absurd; and such a mode they will find that they neither have conceived nor can conceive.

Should the believers in special creations consider it unfair thus to call upon them to describe how special creations take place, I reply, that this is far less than they demand from the supporters of the development hypothesis. They are merely asked to point out a conceivable mode; on the other hand, they ask, not simply for a conceivable mode, but for the actual mode. They do not say—Show us how this may take place; but they say—Show us how this does take place. So far from its being unreasonable to ask so much of them, it would be reasonable to ask not only for a possible mode of special creation, but for an ascertained mode; seeing that this is no greater a demand than they make upon their opponents.

And here we may perceive how much more defensible the new doctrine is than the old one. Even could the supporters of the development hypothesis merely show that the production of species by the process of modification is conceivable, they would be in a better position than their opponents. But they can do much more than this. They can show that the process of modification has effected and is effecting great changes in all organisms subject to modifying influences. Though, from the impossibility of getting at a sufficiency of facts, they are unable to trace the many phases through which any existing species has passed in arriving at its present form, or to identify the influences which caused the successive modifications, yet they can show that any existing species—animal or vegetable—when placed under conditions different from its previous ones, immediately begins to undergo certain changes of structure fitting it for the new conditions. They can show that in successive generations these changes continue until ultimately the new conditions become the natural ones. They can show that in cultivated plants, in domesticated animals, and in the several races of men, these changes have uniformly taken place. They can show that the degrees of difference so produced are often, as in dogs, greater than those on which distinctions of species are in other cases founded. They can show that it is a matter of dispute whether some of these modified forms are varieties or separate species. They can show, too, that the changes daily taking place in ourselves—the facility that attends long practice, and the loss of aptitude that begins when practice ceases—the strengthening of passions habitually gratified, and the weakening of those habitually curbed—the development of every faculty, bodily, moral, or intellectual, according to the use made of it—are all explicable on this same principle. And thus they can show that throughout all organic nature there is at work a modifying influence of the kind they assign as the cause of these specific differences—an influence which, though slow in its action, does, in time, if the circumstances demand it, produce marked changes—an influence which, to all appearance, would produce in the millions of years, and under the great varieties of condition which geological records imply, any amount of change.

Which, then, is the most rational hypothesis; that of special creations which has neither a fact to support it nor is even definitely conceivable; or that of modification, which is not only definitely conceivable, but is countenanced by the habitudes of every existing organism?

That by any series of changes a zoophyte should ever become a mammal, seems to those who are not familiar with zoology, and who have not seen how clear becomes the relationship between the simplest and the most complex forms, when all intermediate forms are examined, a very grotesque notion. Habitually looking at things rather in their statical than in their dynamical aspect, they never realize the fact that, by small increments of modification, any amount of modification may in time be generated. That surprise which they feel on finding one whom they last saw as a boy, grown into a man, becomes incredulity when the degree of change is greater. Nevertheless, abundant instances are at hand of the mode in which we may pass to the most diverse forms by insensible gradations. Arguing the

matter some time since with a learned professor, I illustrated my position thus—You admit that there is no apparent relationship between a circle and an hyperbola. The one is a finite curve; the other is an infinite one. All parts of the one are alike; of the other no two parts are alike. The one incloses a space; the other will not inclose a space, though produced for ever. Yet opposite as are these curves in all their properties, they may be connected together by a series of intermediate curves, no one of which differs from the adjacent ones in any appreciable degree. Thus, if a cone be cut by a plane at right angles to its axis we get a circle. If, instead of being perfectly at right angles, the plane subtends with the axis an angle of 89° 59', we have an ellipse which no human eye, even when aided by an accurate pair of compasses can distinguish from a circle. Decreasing the angle minute by minute the ellipse becomes first perceptibly eccentric, then manifestly so, and by and by acquires so immensely elongated a form, as to bear no recognisable resemblance to a circle. By continuing this process the ellipse passes insensibly into a parabola; and ultimately, by still further diminishing the angle, into an hyperbola. Now here we have four different species of curve—circle, ellipse, parabola, and hyperbola—each having its peculiar properties, and its separate equation, and the first and last of which are quite opposite in nature, connected together as members of one series, all producible by a single process of insensible modification.

But the blindness of those who think it absurd to suppose that complex organic forms may have arisen by successive modifications out of simple ones, becomes astonishing when we remember that complex organic forms are daily being thus produced. A tree differs from a seed immeasurably in every respect—in bulk, in structure, in colour, in form, in specific gravity, in chemical composition; it differs so greatly that no visible resemblance of any kind can be pointed out between them. Yet is the one changed in the course of a few years into the other—changed so gradually, that at no moment can it be said—Now the seed ceases to be, and the tree exists. What can be more widely contrasted than a newly-born child and the small, semi-transparent, gelatinous spherule constituting the human ovum? The infant is so complex in structure that a cyclopaedia is needed to describe its constituent parts. The germinal vesicle is so simple that a line will contain all that can be said of it. Nevertheless a few months suffices to develop the one out of the other, and that, too, by a series of modifications so small that were the embryo examined at successive minutes not even a microscope would disclose any sensible changes. That the uneducated and the ill-educated should think the hypothesis that all races of beings, man inclusive, may in process of time have been evolved from the simplest monad, a ludicrous one, is not to be wondered at. But for the physiologist, who knows that every individual being is so evolved,—who knows further, that in their earliest condition the germs of all plants and animals whatever are so similar, "that there is no appreciable distinction amongst them which would enable it to be determined whether a particular molecule is the germ of a conifer or of an oak, of a zoophyte or of a man"—for him to make a difficulty of the matter is inexcusable. Surely, if a single structureless cell may, when subjected to certain influences, become a man in the space of twenty years, there is nothing absurd in the hypothesis that under certain other influences, a cell may in the course of millions of years give origin to the human race. The two processes are generically the same, and differ only in length and complexity.

We have, indeed, in the part taken by many scientific men in this controversy of "Law versus Miracle," a good illustration of the tenacious vitality of superstitions. Ask one of our leading geologists or physiologists whether he believes in the Mosiac account of the creation, and he will take the question as next to an insult. Either he rejects the narrative entirely, or understands it in some vague non-natural sense. Yet one part of it he unconsciously adopts; and that, too, literally. For, whence has he got this notion of "special creations," which he thinks so reasonable, and fights for so vigorously. Evidently he can trace it back to no other source than this myth which he repudiates. He has not a single fact in nature to quote in proof of it; nor is he prepared with any chain of abstract reasoning by which it may be established. Catechise him, and he will be forced to confess that the notion was put into his mind in childhood as part of a story which he now thinks absurd. And why, after rejecting all the rest of this story, he should strenuously defend this last remnant of it as though he had received it on valid authority, he would be puzzled to say.

The Arts.

PAILLASSE.

"ALCIBIADES, you bite like a woman," said the dirty-faced Athenian youth to his impetuous playfellow. "No," replied Alcibiades, "I bite like a lion!" In a similar spirit of perfect self-appreciation, I declare that on Friday night I cried like a man, at Paillasse. I cried till my head ached. This is not the highest praise to be given to a drama. The pursuit of Art is not to set cambric in a flutter, and to redder the noses of our elegant young fellows in the stalls; but if not the highest praise, it is praise which can rarely be given, and is earned by the exquisite truth of Frédéric and Clarisse in their representation of human suffering. Shakespeare never makes us cry; Goethe never makes us cry; but writers of mediocre talent have repeatedly drawn floods of tears. The reason is

simple: the avenue to tears is through domestic sorrows, and it requires little art to travel on that path. To interest us in the representation of a heroic nature storm-tost in dark perplexities, moved to its heights and depths by the incidents of fate, or by the consequences of its own errors—to raise our sympathy for a Hamlet, a Lear, an Othello, is inconceivably difficult, because the dramatist must make us, who are on a lower level, raise ourselves to the height of his great argument; but it is an easy task to arrest our sympathy for a dying child, a bereaved mother, a wronged husband, or any of the thousand and one domesticities of the drama. That it is not oftener done is the fault of the actor, who spoils, by the unreality of his acting, the effect of the scene.

That fault certainly is not attributable to Clarisse, who played the anxious, mute-despairing mother, with a minute truthfulness, an overpowering pathos not within the reach of any actress on our stage. As a whole, her part wanted relief, perhaps; but the fault does not rightly lie with her so much as with the authors. Very noticeable was her by-play, so full of pathetic significance; and never once did she let drop the Mask to show us the Actress underneath—she was the Person of the wife, never relapsing into Mdlle. Clarisse, conscious of boxes, pit, and stalls.

And what shall I say of Frédéric Lemaitre? If last week I had to make severe objections to certain portions of his *Don César*, to-day I have nothing but unqualified applause to add to my silent tribute of tears. From first to last his acting was free, bold, picturesque, elaborate, and pathetic. His soul had passed into the mountebank's body. The minute touches were such as only an actor of genius could conceive, while at the same time the broad outline of the portrait was never lost in the details. The look and tone with which he asks his wife whether she blushes for him, now that she is discovered to be a fine lady—the attitude and look, as he leans against the rope, in that fearful second act, when despairing thoughts of suicide hurry across his brain—the natural pride with which he lays out the shawl he has bought for his wife—his agony of mind at her flight—and the intensely pathetic manner in which, in the last act, he looks at and fondles his child, who is now blooming and healthy, and whom he must renounce, that the bloom and health may continue;—these are touches which belong to the actor, not to the authors of the piece, and they are touches no one will forget. Much as I admire Frédéric, I never admired him with the same unmingling fervor as on Friday night.

I have said nothing of the piece, Webster having made it familiar through *Belphegor*. It is a work of little merit beyond the scope given to Lemaitre's varied powers. It has, indeed some domestic touches that almost amount to poetry; but they are worked into a tissue of melodramatic commonplace.

Next week I shall have to tell you of *Ruy Blas*, said to be Frédéric's greatest part: is not that a temptation—the greatest part of the greatest living actor!

ALBERT SMITH ON MONT BLANC.

WHEN Madame de Stael asked Talleyrand if Napoleon had more *esprit* than she had, the wit replied, "*Madame, l'Empereur a autant d'esprit que vous—mais vous êtes plus intrépide;*" so I will say of Albert Smith; there are cleverer men, but none more intrepid! His audacity is feverish. He runs a muck against whatever is less rattling and vivacious than himself. He laughs at High Art, and "can't abide" the manifold delights of Bigwigs. You would us soon find him at luncheon reading Aristotle's Topics as listening to a Beethoven quartett at night. Shakespeare is all very well in the closet (where one doesn't read him!) but Dumas and Maquet are the boys! Philosophy slow; High Art slow; History fearfully slow; Politics slow; Private Theatricals slow; Royal Institution lectures slow; Sermons slow!—he is the great Iconoclast of the fast school, smashing with relentless laughter all the solemn shams moving around him, frankly avowing his own want of appreciation of many things which others admire, and inclined to disbelieve that any one does sincerely admire them; and thus, as the most intrepid of Iconoclasts, he comes before a public, a large portion of which heartily admires him, another portion of which does not do him justice.

I claim for Albert Smith over and above your recognition of his popular qualities, the priceless quality of frankness. He accepts no sham. He pretends to admire nothing he does not in his soul admire. He pretends to be nothing that he is not. Beethoven bores him, and he says so; how many are as wearied as he, but dare not confess it? I may object to the Iconoclastic fervour of his avowal, and refuse to accept his taste as my standard, but I applaud his intrepid sincerity in not pretending to admire that which has no power to please him. O, if men would but recognise this virtue of intrepidity! If men would but cease lying in traditional formulas—pretending to admire, pretending to believe, and all in sheer respectability!

But I am not going to suffer my vagabond pen to wander into a discussion on Albert's general character, nor on the hypocrisy of our age; I shall have enough to do to set down my impressions of his entertainment at Egyptian Hall, under the title of *Ascent of Mont Blanc*. You read in the papers last summer, how the intrepid Albert did make that perilous ascent; and you have probably read in *Blackwood* his narrative of the journey. But nothing you have read or heard will convey a true conception of the variety and amusement afforded by his Entertainment, which a crammed audience seemed to think filled the pleasantest two hours that could anywhere be spent. The scenery is painted by that accomplished and poetical artist, W. Beverley, and is not only remarkable for its exquisite artistic effects, but, as I am informed by a gentleman who has made the ascent for its life-life accuracy; so that the spectator may be said to make the ascent of Mont Blanc, while costily seated in Egyptian Hall. The only scene I should wish omitted is that of the French Restaurant, which is singularly unlike a Restaurant, and has a quantity of figures out of all drawing; and without character. (I should add that these figures are not Beverley's). All the rest are masterpieces of scenic effect. The snowy solitudes of those mountainous recesses are presented with enchanting *raison-blanc*; and the aerial distances *font illusion*. Very remarkable is the unceasing variety of these effects occurring amidst scenes so monotonous: here was

* Carpenter's Principles of Physiology. 3rd ed. p. 867.