but subsequently (for he never gave the work the revision necessary to make its doctrine quite consistent) that it "sanctions" and al most necessitates, the assumption of a universal mind of the world (which he calls Theism), and, finally, that it reinstates the freedom of the will and, with that, moral responsibility. Many readers will seem to see in the from materialistic assumptions, but led, under the influence of a broad study of nature, toward idealistic conclusions, and going, at last, so far as to say that the ultimate reality "either mental or something greater." Others will say, with some justice, that it is the work of an invalid, so weak that pages are occupied with reasonings and logical diagrams to show that a universal affirmative proposition cannot be converted similiciter. and with another diagram altogether worthy of Dr. Fludd (except that it is a rough woodstyle, however, is as strong and clear as anything Romanes ever wrote, if not more so. idealistic theory of the evolution of all things, including the laws of causation, there is hardly room to doubt. Such is the theory that the great advocate of Darwinian ideas would inevitably have adopted as the fittest survivor in the struggle of theories.

Professor Koch on the Bacteriological Diagnosis of Cholera, Water-Flitration, and Cholera, and the Cholera in Germany during the Winter of 1892-98. Translated by George Duncan, M.A., with Prefatory Note by W. T. Gairdner, M.D., LL.D., F.R.S. Edinburgh: David Douglas; New York: William R. Jenkins. 1895.

NOTWITHSTANDING the disappointment that the scientific world and the general public experienced in the failure of his promises for the relief of consumption by inoculation, Prof. Koch remains a great authority on all bacteriological subjects connected with the recognition and prevention of disease. The three essays of the title-page of this book give collectively his personal views on the spread and the restraint of that pestilence through which, by the discovery of the comma bacillus, he first acquired fame. The control of epidemics, like the management of any condition affecting large areas or many people, requires popular cooperation; and the by the absorption of such teachings that the popular mind is prepared to assist in the work. Koch believes that the comma (or cholera) bacillus is the efficient cause of that disease. A few py it that power, but nearly all recognize in its presence a clear indication of the epidemic y riety, which, under certain aspects, cannot be distinguished clinically from cholera morbus or cholera infantum. At least to believe that

it is pathognomonic is to be on the safe side.

It has long been recognized by epiden iologists that the study of any outbreak mean the detection of the first case, either at or after as occurrence. But the recognition of undeveloped cholera is a clinical impossibility, although such undeveloped cases furnish the sparks that light the greater flame of general infection. It is here that the bacteriologist is at his best. When the tornado strikes the ship, every sailor realizes it. It is the master's province to foretell the storm while the disturbance is yet recognizable only by his barometer. Koch expresses the true principle of all this

work when he says: "The proper field of bacteriological work, however, is the beginning and the end of an epidemic, when all depends on the correct judging of each individual case and the swiftest possible prevention of danger to the neighborhood." Almost every cholera epidemic is like an extremely flattened ellipse whose vertices are the first and the last cases. book the phenomenon of a man setting out Upon determining just where the lines that enclose the disease begin and cease may depend the safety of the immediate and of the proximate communities. Bacteriology will do this: and the moral for us is to have effough skilled bacteriologists and equipped laboratories to render an intelligent and immediate verdict. Early measures of control may thus be instituted without waiting for the epidemic to become epidemic in the one instance, and the unsuspected case, held as a precaution, may be restrained from ignorantly spreading the disease in the other. For it is well established cut, instead of a beautiful copper-platel, and now that a person may appear and may feel full of the most puerile propositions. The perfectly well, and yet be an actual disseminator of cholera germs. Certain and immediate recognition of the disease can be made in That, if he had recovered from his illness, he about 50 per cent. of the cases, when the excreta would, by this time, have been advocating an are examined by competent observers; and in every instance it can be determined in from six to ten hours by means of the peptone (supplemented by the gelatine) plate-cultivation. In relation to detecting, the cause en route when water-borne, there is no pretence that cholera-infected streams will always yield bacteria to the investigator. The probable explanation of this is not that there are no bacteria in the water, but that their distribution has excluded them from the particular specimen examined.

> The essays on water filtration and on cholers in the winter of '92-'93 are excellent examples of clear description and logical reasoning. An underlying motive running through the whole book is antagonism toward, or defence against, the attacks of the Pettenkofer or Munich school, which teaches a theory of localism with special reference to groundwater and little regard to bacteria. The controversy is not always in good taste, and there is an expenditure of energy that appears more personal than scientific in motive. Nevertheless the book is a good contribution to the literature of public health, which those charged with its care as engineers and civil officers, as well as physicians, may well consult. and the translation is in idiomatic and most readable English,

A Japanese Marriage. By Douglas Sladen. London: Black; New York: Macmillan. Pp. 401.

Mr. Douglas Sladen's 'Japanese Marriage' would not need to be spoken of had not this writer, by a certain straightforwardness and naturalness of style, gained an attention not usually given to books which exhibit such full measure of ignorance and coarseness, not to add effrontery. There was no need of resorting to what the world knows as fiction, for his former books and articles on Japan illustrated to a sufficient extent the writer's power of volume, as usual, the Japanese is invariably a "Jap" (no other respectable writer on Japan ever repaid the country's hospitality by this impertinence), and the foreigner is incapable of speaking except in copious slang; but we have also such passages as the following, (p. 166), which the former volumes have hardly equalled:

"Bryn's newly formed passion for Philip

[she is his wife's sister, and lives in their household]—if one may use the word where the question of sexual feeling did not enter—would question of sexual feeling did not enter—would have carried her through a much more severe trial. She thought the grandest sight she had ever seen in her life was Philip, unarmed, and in his night clothes, first hurling one sworded assailant over the banisters . . and then tearing the life out of the other's throat.

There was no more taint of jealousy than there was of sexualism in her passion for Philip. She did not desire his caresses, though they gave her a dog's pleasure.1

BOOKS OF THE WEEK Alexander, Mrs. A Fight with Fate. Philadelphia: J. B. Lippincott Co. \$1.25. Armstrong, E. Lorenzo de' Medici, and Florence in the Fifteenth Century Putnams. \$1.50. Berringer, Mrs. Oscar. The New Virtue. Edward Ar-nold. \$2.50. in, B. A Happy Soy. Macmilian -\$1.25.

in, B. A Happy Soy. Macmilian -\$1.25.

cl. Alloe S. Armenian Foems, Rendered into in Verse. Boston: Roberts Bros. \$1.25.

Charlee. Life and Labor of the People in Lon-Vol. VII. Population Classified by Trades. iilan. \$3.

tt S.R. Cleg Kelly, Arab of the City. Apple-\$1.50. tons. \$1.50. urtis, H. H. Voice-Building and Tone-Placing. Appletons, \$2. el Mar, Alexander. The Science of Morey. 2d ed., revised. Macmillau. \$3,25. urego, Prof. H. Elements of the Theory of Functions of a Complex Variable. Philadelphia: G. E. Fisher and I. J. Schwatt. and L.J. Schwatt.
smerson, R. W. Two Unpublished Essays. Boston:
Lamson, Wolffe & Co. \$1.
tverett-Green, Evelyn. Judith, the Money-Lender's
Daughter. Boston: A. L. Bradley & Co.
field, Eugene. The House: An Episode in the Lives of
Ren Ben Baker. Astronomer, and his Wite Alloe.
Scribners. \$1.30. ssing, George. Sleeping Fires. Appletons. 75c. n, Joseph. When Greek Meets Greek. Philadel: : J. B. Lippincott Co. , Lefcadio. Kokoro: Hints and Echoes of Japan-Inner Life. Boston: Houghton, Miffiin & Co. n, Prof. H. Education. Dodd, Mead & Co. \$1.50. llent World: The Love Story of a Deaf Mute. Mead & Co. 750. Edward. Southern Sidelights. T. Y. Crowell & tot. \$1.75.

acks, William. Robert Burns in Other Tongues. Glasgow: James MacLehose & Sons; New York: Macmillan. \$2.50. C. S. The Ion of Euripides. Oxford: Claren-ress; New York: Macmilian. n. Henry. Doctor Congalton's Legacy. Scrib-C. Art and Humanity in Homer. Macmilian. 75c.
Ae, Albert. Tommy Toddles. Harpers. \$1.95.
Amcke, Mrs. Gesine. How to Live Well on Twentyare Cents a Day. J. S. Ogivie Publishing Co. 35c.
Laclaren, Rev. Alexander. The Beatindes, and Other
Bermons. London: Alexander & Shepheard; New
York: Electrical Statistics, 1896. New York: C. H. Nicell. \$8.
Eartin, A. S. On Parody. Henry Holt & Co. \$1.95.
Lather, Marshall. Bancashire Idylls. F. Warne & Co.
\$1.50. ears, Mary M. Emma Lou-Her Book. Henry Holt & Co. \$1.

Co. \$2.

Co. licko de 1898 no Brazil. Rio de Janeiro: Casa Mont'Alverne.
Ridge, W.P. The Second Opportunity of Mr. Staplehurst. Harpers. §1.25.
Ridley, Annie E. Frances Mary Buss, and her Workfor
Education. Longmans, Green & Co. §2.35.
Roberts, C. G. D. Earth's Enigmas. Boston: Lamson,
Wolfte & Co. §1.35.
Roberts, W. Book Verse, London: Elliot Stock; New
York: Armstrong. §1.25.
Russeil, Dora. A cidden Chain. Rand, McNahy & Co.
Sala, G. A. The Thorough Good Cook. Brentancs. §4.
Scollard, Clinton. Hills of Song. Boston: Copeland &
Day. §1.25.
Seilhac, Léon de. Le Monde Socialiste: Groupes et Programmes. Paris: Colin & Cie.
Smith, Gertrude. Dedora Heywood. Dodd, Mead & Co.
750. 75c.
3naith, J. C. Mistress Dorothy Marvin. Appletons. \$1.
3tackpole, Rev. E. S. Frophecy; or, Speaking for God.
T. Y. Crowell & Co. 75c.
3udermann. Harmann. Marda. [Sock and Buskin Library.] Boston: Lamson, Wolffe & Co. \$1.
Tarbell, Ida M. Madame Roland: A Biographical
Budy. Soribners. \$1.50.
The Danvers Jewels and Sir Charles Danvers. Harpers.
\$1. The Life and Letters of George John Romanes. Writ-ten and Edited by his Wife. Longmans, Green & Co. Atheut, George. The Vedanta Stirius. [Sacred Books of the East. Vol. XXXVIII.] Oxford: Clarendon Press; New York: Macmillan. 83.55.
Thurston, I. T. Boys of the Central: A High-School Story. Boston: A. J. Bradley & Co.
Vivekananda, Swami. Eight Lectures on Karma Yoga.
Brentance, 8 Wami. Viverananus, Swami. Engit Lecture on matter average of the Cite. Brentanos. \$1. Vogité, E. M. de. Deant le Siècle. Paris : Colin & Cite. Vogité, E. M. de. Deant le Siècle. Paris : Colin & Cite. Wegmann, Edward. The Water-Supply of the City of New York. 1688-1895. John Wiley & Sons. Wheatley, H. E. The Diary of Samuel Pepys. Vol. VII. London: Sell; New York: Macmilian; \$1.50. Willoughby, W. W. An Examination of the Nature of the State. Macmillan. \$3. Wordsworth, Dora. Journal of a Few Months' Residence in Portugal and Glimpses of the South of Spatis. New ed. Longmans, Green & Oc. \$3.

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on the "palisade," which Mr. Round, we feel sure, could turn to better account.

It is curious to contrast Mr. Round's outspoken and not over-sympathetic criticism of Freeman with his carefully reverential attitude towards Dr. Stubbs. Doubtless Freeman was less adequately equipped for writing the history of the eleventh and twelfth centuries; doubtless his more positive temperament led him to more definite statements, while his friend avoided committing himself; but we cannot help asking ourselves what Mr. Round would have said if Dr. Stubbs had been, let us say, a German scholar, and not an English Conserva tive. For, in spite of Freeman's extravagances and Dr. Stubbs's moderation, the underlying conceptions of both were substantially the same -just as the Radical theory and the Whig theory of government are at bottom identical. Both, like Waitz, their German exemplar, seem to have carried back to the past the ideas of equality and self-government which have characterized our own age. The destructive process which Mr. Round has set going will not, it may be anticipated, stop with Mr. Freeman.

The time has certainly come for constitu tional history to be written by Conservatives And yet the presence in this admirable volume of a few pages (394-398), rather more in place in the Quarterly Review, suggests the reflection that if Liberal spectacles are not altogether satisfactory for looking at the past, Conservative spectacles are not to be altogether trusted for a complete view of the present.

Memoirs of Frederick A. P. Barnard, D.D., LL.D., L.H.D., D.C. L., Tenth President of Columbia College in the City of New York. By John Fulton. Columbia University Press (Macmillan & Co). 1896.

WHOEVER expects, to find in these memoirs a complete disclosure of those qualities of Dr. Barnard's personality which invested it with a certain halo in the popular imagination, will be disappointed. Something is here to account for that halo-his enthusiasm, his progressive spirit, an undying boyishness in him, responding to the boyishness of his students in one college after another, and securing for their offences generous consideration; but there are other things set down as frankly which make the halo dimmer for our instructed mind then it was when we set out.

Born in Sheffield, Mass., in the year of many great ones, 1809, at the tender age of four he was being schooled by Orville Dewey, the distinguished Unitarian preacher. But, though his education began so early, it was through out extremely imperfect, and he did not consider that he was ever really educated at all. It is an interesting circumstance that, in the Stockbridge Academy, Mark Hopkins, afterwards the President of Williams College, was continually pitted against Barnard in all sorts of generous intellectual rivalries. Barnard's sympathetic and sarcastic in the tone of the admission to Yale and his experience there repeat in a general way many other accounts that we have had of the feebleness and slackness of the college at and about the time of his attendance (1824-28). Not having studied arithmetic at all since his childhood, he devoted a few weeks to cramming it, and so discovered the beginning of an aptitude which afterward grew steadily with his growth and strengthened with his strength. At his graduation he was next upon the honor list to Horace Binney, jr., who excelled him in his so far as to deny that he was a "refugee" in classics. Barnard was the youngest student any proper sense of the word. There is some

pelled a different course. The chapter on his life in Hartford, whither he went directly from college, with glimpses of Catherine and Harriet Beecher, George D. Prentice, Whittier, Park Benjamin, and Fanny Fern, is the most entertaining in the book. He was a man of orations, and his first one was prepared for a Fourth of July celebration at Sheffield in 1829. It was a plea for the Colonization Society's plan of negro deportation. But even this was oo radical, the village Elders thought, for opular approval, and he substituted for it one of the regulation sort. His deafness carried him back to Hartford, after a year's tutorship at Yale, to teach in Gallaudet's Deaf and Dumb Asylum, from which Gallaudet had just retired. Similar work followed in New York, whence in 1838 he went to Alabama and remained there until 1854, as professor of mathematics in the infant State University, which on his arrival had just been completely broken up by the insubordination of the students and the resignation of the faculty. Politics as well as education interested him, and an oration which he gave at Tuskaloosa, July 4, 1851, is here reproduced entire. It did not go very near the heart of the matter. The connection of involuntary labor and respectable idleness as cause and effect was the most vigorous thrust. With a mental reservation in favor of slavery, he was eloquent for the Union as "a peaceful asylum of the oppressed "-" the fettered thousands of other lands." As time went on, Dr. Barnard's complicity with the industrial system of the South became much more pronounced. Going to Oxford, Mississippi, as Chancellor of the State University, ne ultimately became subdued to what he worked in to a remarkable degree for a New Englander of education and character. As his biographer says:

"He accepted slavery as an unwelcome fact; acquiesced in it as an established fact; he he acquiesced in it as an established fact; he defended it as a fact that could not, in his opinion, be annulled or eliminated from the social state of the South; and finally he participated in it by becoming, of his own will, a slave-

Subjected to suspicion, he replied: "I was born at the North; that I cannot help. . . I am a slaveholder, and, if I know myself,

am 'sound on the slavery question.'" As the catastrophe drew near, "he was equally indignant at the Northern agitators who were ready to imperil the Union for the sake of hastering emancipation, and at the Southern agreetors whom he believed to be plotting the disruption of the Union." "There is not," says his biographer, " the slightest doubt that in his heart of hearts he was a Union man; but he behaved with such consistent prudence that his sentiments exposed him to no danger." Here, and in this connection, it is impossible to avoid a sense of something unbiographer. Leaving Mississippi, Dr. Barnard remained quietly at Norfolk for some time, and on the fall of that place in May, 1862, he passed within the Northern lines. His doubts were now completely dissipated, and in a little while he was a flaming Unionist, publishing in 1863 a "Letter to the President of the United States by a Refugee" in which slavery was denounced as something worse than "the sum of all villanies." His biographer comments severely on this letter, going thing of the manner of Purcell's Life of Man-His predilection was for the law; but inher- ning in the remark that, as a consequence of problems which American thinkers had put

ited, incurable, and increasing deafness com- this letter, "his appointment to some permanent position of honor and usefulness at the North was assured; and, on the resignation of President King, he was elected as President of Columbia College."

The longest chapter in the book gives a brief history of the College, and in the four succeeding chapters the salient points of Dr. Barnard's administration are clearly brought out -his sympathy with scientific studies, with an elective course of study, and with the higher education of women. It is not without good reason that Columbia's College for Women bears his name, although its success may be regarded as an injurious criticism on the method of coeducation for which Dr. Barnard strove, but which he was unable to secure.

Algebra und Logik der Relative, der Vorlesungen über die Algebra der Logik. Von Dr. Ernst Schroeder. Leipzig: Teubner. 1895. Vol. I., Part I. 8vo. pp. 649.

SCHRÖDER'S great treatise on deductive logic, the most extensive that has ever been written, cannot well be neglected in Germany; and it is hard to imagine how any person who has been through the work can ever be again guilty of such logical absurdities as have been scattered nitherto through the very best of German text-books. Everything, or almost everything, so far written about the logic of relatives has made use of some kind of technical algebra. The result has been to convey the idea that the logic of relations is an exceedingly specialized branch of logic. This is not true. At least, those who cultivate it maintain that it is much more general than ordinary logic. They hold, too, that our ordinary reasonings, so far as they are deductive, are not, in the main, such syllogisms as the books have taught, but are just such inferences as are particularly dealt with in this new branch of logic.

To make this plain, they point to the fact that the old syllogistic inference can be worked by machinery, but characteristic relative inferences cannot be performed by any mere mechanical rule whatever. Alike in the forms f inference which they have added to logic, and in the old syllogism, the relativists trace the following steps: first, the choice of premises, and second, the bringing together, or colligation, of the premises chosen, and the union of them in one conjunctive proposition. They show that, even in non-relative logic, there are occasional cases in which there are different ways of connecting premises; and, in the logic of relatives, the ways are simply innumerable, for it makes a difference how often one and the same proposition is taken as a premise. This being the case, it is plain that a machine cannot indicate the conclusion from given premises, since the number of such conclusions is endless. The different premises having been united into one, this one is subjected to certain inferential transformations, which in the case of ordinary syllogism can be analyzed into two steps. Following upon these, there is a substitution of a "term of second intention," or logical conception, for an ordinary conception of experience; and, finally, this logical term is removed. At every step of this there are different courses which reason may pursue; so that the conduct of the reasoning far transcends the powers of any machine. Nor can our ordinary procedure in thinking possibly be mapped out in advance by turning the crank of a machine.

We will not find fault with Dr. Schröder for devoting his own researches to the solution of

aside as of inferior interest, on account of their special and technical character; for every inquirer should follow his own bent. Besides, it is extremely useful to place within reach of German philosophers a work which may train them to a really precise logic. We repeat that it would be needless to fear that the work will be passed over in neglect and silence. To affect to treat such a treatise with contempt would, in Germany, expose any man who might attempt it to severe blame. It cannot, therefore, but prove a useful book. Another "Ab teilung" of it still remains to appear, although pearly 2,000 large octavo pages are already be fore the public; and we may hope that, in that

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concluding part, Dr. Schröder may yet show how some of those who have laid the foundations of this method of studying logic, conceive that it ought to modify those general notions about reasoning and other mental processes which are expressed or implied in the hurried talk of the street, and leave their traces upon all our thought, and also how it ought to modify our general philosophical conceptions-conceptions based far more upon logical analysis than upon anything else.

As this is a branch of study in which Ameri

can students have done more than their share of the work, our readers may like a slight hint of what the nature of the new light is supposed to be. First, what is the Logic of Relatives? It is a subject treated in all the more complete mediaval handbooks, and hinted at by Aristotle. But it was Robert Leslie Ellis, the editor of Bacon's philosophical works, who first got some idea of how it ought to appear in a modern shape. Namely, instead of analyzing a proposition into subject and predicate, it analyzes it into subject, predicate, and objectswhich last it conceives as so many additional subjects. In 1858 Augustus De Morgan published a long memoir on the subject, in which, besides establishing many important truths, he clearly showed that, instead of being a special branch of logic, it is, in fact, a great generali zation of the old conceptions. In 1870 appear ed the first of a series of contributions by an American writer, Mr. C. S. Peirce, one of which forms the acknowledged basis of the present volume by Dr. Schröder, who, however, has remodelled the whole and made ex tensive additions. Other Americans have materially advanced the subject, especially Prof. O. C. Mitchell of Marietta, to whose work both Dr. Schröder and Mr. Peirce attach a high value. Students all over Europe have done good work, most of them following more or less closely the methods of Peirce. Mr. A. B. Kempe, however, formerly President of goes far beyond that: it is a powerful drama, the London Mathematical Society, in an important memoir in the Philosophical Transactions, has struck out an original path.

The first general notion of logic which be comes profoundly modified by the study of relatives, is that of deductive reasoning itself, which the old logic represents to be something purely abstract, intellectual, and virtually mechanical. The new school not only declare that deduction is regulated by choice and a found insight into human nature. Molière's deliberate plan, but, further, that it reaches its conclusions by observation; in fact, they hold that it differs from inductive reasoning mainly in this, that it observes objects of our own creation-imaginary or graphical-instead of objects over which we have relatively little control. This doctrine is not unlike Mill's analysis of the "pons asinorum." It is a twoedged weapon, cutting both of the great philosophical doctrines pretty seriously.

Another common notion of a logical kind which is strangely transformed by the new unmasking of the hypocrite, and on the final

views is that of generalization. The generalization of the books is, for the Relativists, merely the simplest and least important variety of a process which we will refrain from defining, but of which an example is the passage of thought of the geometer by which he comes to conceive that a straight line returns into itself.

Le Tartuffe des Comédiens. Par P. Réguier. Paris: Oliendorff, 1896.

THIS is a really fine and instructive piece of work. M. Régnier's intention had been to publish an edition of Molière from the actor's point of view, and probably no man is better qualified for the task; but advancing years have circumscribed his ambition, and the present volume is the only one he expects to bring out. This is a disappointment, for "L'Avare," "Les Femmes Savantes," "Le Misanthrope." "Le Malade Imaginaire," annotated and accompanied by studies such as these in "Le Tartuffe" would be of the highest value to tudents of Molière and of literature in gene ral. The actor who has, to use the French expression, to get into the skin of the character he is to play, must of necessity study that character in its every aspect and in its relation to every other character in the play, to the tone and to the purpose of the play. That is, he must do precisely the sort of work that any genuine student of literature must do in order thoroughly to understand the author and his productions. Every line, every word then becomes important; nothing must be slighted, still less overlooked. The analysis must be exact and it must be comprehensive. And these words fitly characterize the studies and notes of M. Régnier. It is quite safe to say that every lover of Molière, every investigator of the character of Tartuffe, will find in this book some new point or some new light upon certain parts of the complex characters of Tartuffe and Elmire.

M. Régnier discusses the question of the real character of the impostor as a necessary preliminary to the indication of the manner in which it is to be played, and he comes to the conclusion that, to make even a partial buffoon of him, to exaggerate the possibly comic side, is to err gravely. In other words, without naming Coquelin the elder, he condemns the travesty of Tartuffe which that commercial actor presented to American audiences after having inflicted it on French ones. The play is a comedy, no doubt, and contains scenes of the highest style of purely comic art, but it in which terror thrills the spectator. Tartuffe is not only a hypocrite whose sanctified tone and upturned eyes disgust, but a formidable scoundrel, utterly unscrupulous and deadly in his vengeance. These points are admirably brought out by M. Regnier, who has not failed to perceive in the depth and power of Molière's genius, as exhibited in his celebrated play, a kinship to Shakspere's philosophy and pro-"Tartuffe" stands among the great masterpieces of the French drama, alongside of Corneille's "Polyeucte" and Racine's "Phèdre."

The modest manner in which M. Régnier urges his points and indicates interpretations s very winning, and lends a singular charm to the numerous notes and explanations. Especially worthy of close attention and sure to yield much food for profitable study are his comments on Elmire, on the famous "pauvre sary. homme" scene, on the great scene of the

catastrophe. A series of volumes of this description, taking up the masterpieces of French classical tragedy and comedy, would be of incalculable help to teachers and students of literature.

The Silva of North America. By C. S. Sargent, Director of the Arnold Arboretum of Harvard University. Illustrated with figures and analyses drawn from nature by Charles Edward Faxon. Vol. 1X. Boston: Houghton, Mifflin & Co. 1896. 4to, pp. 190, plates

THE ninth volume of Prof. Sargent's 'Silva contains descriptions of the arborescent species of Cupulifera which remain after the oaks are disposed of. The latter were brought into volume 8. First come the chestnuts and their nearest allies; then follow in succession the birches, alders, and myricas, and lastly, the willows and poplars. Illustration and treatment continue substantially unchanged. The beautiful plates are full of instructive detail, and exhibit the artistic feeling which has characterized all those which Mr. Faxon has given us before. He is particularly successful in imparting spirit to his larger figures, giving to them an air of freshness and elasticity which is as far removed as possible from the conventional drawings of plants found in many treatises. There is not, at any point, the slightest sacrifice of accuracy for the sake of securing this spirited effect: Mr. Faxon is too profound and true a botanist to permit this; therefore his figures and analytical sketches possess the highest degree of permanent value.

In the present volume the chestnuts are introduced by the great golden-leaved chinquapin of the northwest coast, a tree sometimes reaching the height of one hundred and fifty feet, with a trunk clear of any branches for more than a third of this distance, and ten feet through at the base. It is a member of an interesting genus, Castanopsis, which may be fairly recognized as a connecting link between the oaks and the true chestnuts, and is most fully represented in southeastern Asia. Of the true chestnuts we have two within the limits of the area of the 'Silva,' the chinquapin, Castanea pumila, and the large chestnut so widely known to all our readers. The latter species marquerades in the present volume inder the specific name dentata, having had to resign the name it was known by in Prof. Sargent's work on the 'Forest Trees of the United States,' for the tenth census; but it is in good company, since its near relative, the beech, has had to take the name Fagus Americana in place of the one used before by Prof. Sargent, ferruginea, as well as of the one which has been adopted by a late catalogue, to wit, alropunicea. These serious triflings over names are not rendering the study of botany very attractive nowadays. Out of the confusion which precedes a rearrangement there comes a good deal of annoying dust which may be even blinding. It seems, as we have said before, in noticing previous volumes of this work, a pity that the 'Silva' should share in the confusion incident to the times. Many of the names adopted in the 'Silva' cannot satisfy those who are thoroughgoing in their reform; for instance, they cannot be attached to the trees in the proposed New York Botanical Garden, and they do not satisfy the conservatives who have asked that changes should be made only where they are absolutely neces.

After this comment has freed the mind of the reviewer from all sense of complicity, no-