

to the facts and arguments which have been brought forward in opposition to it. That among the greater number of tribes which have been found in the lowest stage of savagery, no trace of marriage by capture has been discovered; that among such tribes female infanticide is by no means a common practice; and that, on the contrary, female children are regarded by their parents as a source of wealth, through the price which they bring for wives, — these and similar facts seem to prove that the custom, of which the author has pointed out so many widely scattered traces, did not originate in any general law of social organization, but was, like polygamy, polyandry, the North American clan-system, the Australian class-system, the Hindoo caste-system, the Roman paternal autocracy, and the many other social arrangements which have been pressed into the argument, merely a casual and local custom, — one of those numberless diversities of tribal organization, which, like the diversities of language, indicate at once the variety of the human faculties and the unity of the species. The conclusion announced by Darwin, that all the races of men are descended from a common ancestry, and that all inherit the ordinary pairing instinct, — which, however perverted in occasional instances, manifests itself distinctly in the vast majority of communities, savage and civilized alike, — is one which will doubtless be generally accepted in the end. The theories which oppose this conclusion destroy one another; and the results of the profoundest science bring us back to the common belief which prevailed before the theorizers began their work. H. HALE.

STEPHENS'S HISTORY OF THE FRENCH REVOLUTION.

THE literature of the French revolution would in itself compose a library, and Mr. Morse Stephens naturally begins his preface with an excuse for adding another history to a list which includes such names as Thiers, Taine, and Carlyle. In a masterly survey of his authorities he shows, that, since Carlyle wrote, our sources of information have been materially increased; that a number of local records and personal memoirs have come to light; and he lays particular stress on a collection of pamphlets in the British museum which Carlyle found to be inaccessible. Briefly, Mr. Stephens has spent untiring labor on the subject for years past, 'to the exclusion of every thing else,' and he aims at embodying in this volume the results of specialist researches. He notes in this connection the influence of the German school of

A history of the French revolution. By H. MORSE STEPHENS. Vol. I. New York, Scribner, 1886. 12°.

historians, — an influence, by the way, which is discernible in the increasing study of parochial and diocesan history in England, and in the rise of historical magazines and reviews such as the monthly *Révolution Française* and *Revue de la révolution*, which are entirely devoted to the history of the revolution.

Mr. Stephens introduces his work to the American public in a separate preface, in the course of which he remarks that the example of American independence was a more powerful ideal with the earlier revolutionists, the admirers of Lafayette and Franklin, while the later leaders sought inspiration from the republics of Greece and Rome. The Declaration of the rights of man he somewhat unfairly describes as a 'ridiculous fancy of the admirers of the American constitution,' foisted on the assembly by Lafayette. Surely the declaration breathes the spirit of Rousseau, and, far-fetched and extravagant as it may seem to us, it was the gospel of the French revolution.

While the conflict of king and subject was passing into the tyranny of the state, the questions raised were so varied and suggestive that the epoch forms a kaleidoscope which can always be viewed in a new aspect. Theorists had full sway, and many of those great modern movements directed against the constitution of society — movements which have lately received a new impetus — were inaugurated. Now that it is hinted that democracy does not imply liberty, and that a new school of 'physiocrats' is growing up in the stronghold of modern democracy, it will be useful to study the experiments made by land and labor reformers a century back.

The plan of Mr. Stephens's work is simple and effective. In the present volume he carries the narrative from the assembly of the notables to the dissolution of the constituent assembly, aptly introducing sketches of important departments of the subject, such as the court, the army, and the church. There is no 'Carlylese' or lurid color in his description; but if he does not write at high pressure, 'flamefully,' he tells his story in clear and straightforward English. Here and there occurs a slovenly phrase, such as, "the influence of the parlement and the affection has been noticed when discussing" — but the style generally is attractive by its simplicity and correctness. The fall of the Bastille is told unobtrusively. We notice that the celebrated speech, 'Paris has conquered her king,' is attributed to Lally Tollendal instead of to Bailly, presumably on the authority of the museum pamphlets. Bailly makes no mention of it in his 'Memoirs.'

Mr. Stephens is, we think, weakest in his estimate of character. Study of Mirabeau's corre-

spondence with La Marck seems to have prejudiced him against the 'moral' characters of the revolution, — Necker, Bailly, and Lafayette, — whom he scarcely mentions without a sneer. The removal of the king and assembly to Paris is put down to "the extreme vanity of Lafayette, who wanted them there merely to increase his own honor and glory." The starvation "gave Lafayette an opportunity to pose as savior of the monarchy." In the matter of the suspensive veto, Necker "acted vainly and foolishly on the plan which Lafayette had vainly and foolishly invented." What was criminal in Lafayette at the Hotel de Castries, it becomes a virtue in Mirabeau to defend. In short, Mr. Stephens feels something of the rancor which Mirabeau felt when "every attempt of Mirabeau to unite himself to Necker and Lafayette had been spurned by those vain and conceited men." On the other hand, the double dealing of Mirabeau when he was in the pay of the court is put down as masterly statesmanship, and his want of principle is almost made a proof of his greatness. Nothing is said of the difficulties of Lafayette's position, which exposed him to attack from both sides; of his chivalrous loyalty to the court, yet sympathy with the popular cause; or of the high opinion entertained of him by the best contemporary critics.

There is much new and interesting matter in the account of the elections to the states-general, and of the local *cahiers* of grievances. Mr. Stephens is a lover of exact detail, perhaps at times overloading his history with biographical minutiae. There are also sketches of the economic and financial state of France in connection with the views of the foremost thinkers (to whom the evils of the internal *douanes* suggested the doctrine of free trade), showing the results of the issue of a paper currency and of the wasteful system of taxation. The theory (p. 176) that the burning of châteaux was due to the desire of the copyhold tenants to get possession of their court-rolls seems a little strained to any one who has read contemporary accounts of the condition of the French peasantry. Points made very clear are the unpractical character of the constituent assembly, with its 'theory of irregular verbs,' — the reasons why it was left behind by the provinces in the march of ideas, — and the widening gulf between the *bourgeois* and lower classes, especially the *ouvriers*, who suffered from protective trade associations.

Enough has been said to show that Mr. Stephens has produced a work which promises to rank among the standard authorities on the period, and which will be of sterling historical value to the student of modern democracy.

VINES'S LECTURES ON THE PHYSIOLOGY OF PLANTS.

THERE has long been felt the need of a good text-book on vegetable physiology in the English language, and hence we heartily welcome the appearance of this excellent treatise. The investigation of the phenomena of plant-growth, nutrition, respiration, metabolism, reproduction, etc., has of recent years been almost entirely accomplished by the Germans, and the prominent part they have taken in these researches will be at once apparent to the reader of Professor Vines's work. As the title indicates, the volume is an expansion of the author's lectures on the subject, and these are twenty-three in number. Nearly ten years have elapsed since its preparation was begun, ill health and the pressure of official duties having retarded its publication.

Lecture I., as introductory, treats of the general features of the vegetable cell, its cell-wall, and its contents, *Protococcus* and yeast being used as examples with references to the tissue systems of multicellular plants. Then follow two chapters on the structure and properties of the cell, in which are discussed the growth, thickening, and lignification of the wall; its optical properties; and its incrusting mineral matters, — oxalate and carbonate of lime, and silica; the protoplasmic contents and the nucleus; the vacuole and the cell-sap. The molecular structure of organized bodies is then considered. An account is given of 'imbibition,' or capacity of organized matter for absorbing water. The rival theories of Naegeli and Strasburger are compared; and the latter appears to be favored by the author, though farther on in the book reference is made to Naegeli's *micellar* hypothesis. In this connection allusion is made to Hale's old experiment of putting peas to soak in an iron pot with a leaden cover on which was placed a weight of 184 pounds: the force generated by imbibition was sufficient to raise the cover and weight. Here we also find an instructive discussion of the osmotic properties of the cell, and it is pointed out that substances may be transferred from cell to cell by means of the connecting threads of protoplasm as well as by osmosis.

Lecture IV. is on the absorption of water by root-hairs and the epidermal cells of rootlets, and is full of important information for the agriculturist. The structure of soils, the action of acid cell-sap, which saturates the absorbing organs and brings salts insoluble in water alone into solution, are described, and numerous analyses of the ash of plants are given. The discussion of the absorp-

Lectures on the physiology of plants. By SYDNEY HOWARD VINES. Cambridge, University press, 1886. 8°.