

densiflora, described on p. 397, is the same as *S. junciformis* Engelm. & Gray, described on page 400. *Bouteloua ramosa* Scribn. is described on page 416, and again on page 418 it appears as a variety of *Bouteloua oligostachya*. *Leptochloa polygama* (Fourn.), described on page 437, is the same as *Gouinia polygama* Fourn., a species identical with *Bromus virgatus* Presl. *Gouinia* appears to be a well established genus, and the grass in question should be named *Gouinia virgata* (Presl). *Eragrostis pallida* Vasey, described on page 479, is not distinct from *E. glomerata* (Walt.), *E. conferta* Trin., described on page 481, but it is very unlike *Eragrostis alba* Presl, the type of which has been seen by the writer. Under *Atropis fendleriana* (Steud.) is included under *Poa arida* Vasey, which is a distinct and well marked species, as are *Poa eatoni* S. Wats. and *Poa lucida* Vasey, also cited as synonyms, although the latter is very close to *Poa buckleyana* Nash. *Atropis lævis* (Vasey) is, as stated, *Poa lævis* Vasey, but that name should be changed to *Poa lævigata*. '*Festuca rubra* var. *pubescens* Vasey ined.' is the same as *Bromus secundus* Presl, and *Festuca richardsonii* Hook., *Bromus barbatoides* Beal, page 614, is *Bromus trinii* Desv. Ramaley, and not R. Pound, ought to be cited after *Agropyron violaceescens* on page 635, and after *Agropyron caninoides* on page 640. *Agropyron violaceescens* is *Agropyron richardsoni* Schrad. '*Agropyron glaucum* (Desf.),' page 637, is *Agropyron spicatum* (Pursh). *Poa brandegei* Scribn. in herb.,' page 544, is the same as *Poa lettermani* Vasey, described under *Atropis* on page 579. Under *Atropis pringlei* (Scribn.), page 578, *Poa pattersoni* Vasey is erroneously cited as a synonym.

There are keys to the genera under all the tribes with the exception of Hordeæ, and there are also keys to the species under the genera. The difficulty of making keys is appreciated by all who have undertaken them, and the value of good keys is at once appreciated by those having occasion to use them. A clear conception of all the species of a genus, and a sufficient knowledge of their characters to be able to express briefly their most obvious points of difference or resemblance, is essential to the compilation of a good key. The test of a key of analysis is in its use. The writer has not

attempted to use the keys in the work under notice, but it is evident that they have been prepared with much labor and painstaking care. In glancing them over one is struck by the very frequent use of measurements of glumes, awns or ligules, the dimensions of which are often too slight or too inconstant to be of much value in a diagnosis.

On page 237, under *Muhlenbergia*, in a considerable series of 'g,' there are:

- g. Floral glume 2.5 mm. long, ligule 2-2.5 mm.
long, awn 1 mm. long.....23
- g. Floral glume 2-2.7 mm. long, ligule 2-3 mm.
long, [awn] 1-3 mm. long.....24

Lower down on the same page, in a series 'h,' appears:

- h. Floral glume 3.5 mm. long, ligule 1 mm. long,
awn 10-15 mm. long.....33
- h. Floral glume 3.5-2.5 mm. long, ligule 1 mm.
long, awn 10-15 mm. long.....28

These distinctions are too slight to be of much assistance to the student in running down a species.

Considering the extent of the work and the conditions under which the author labored, it is remarkable that more errors have not occurred. In spite of the faults to which attention has been called, and others not noted, due, chiefly, to imperfect proof-reading—the difficulties of which in such publications few appreciate—the work is one of much value to systematic botanists, and indispensable to those engaged in the study of the large and very interesting family of plants treated.

F. LAMSON-SCRIBNER.

Race Traits and Tendencies of the American Negro.

By FREDERICK L. HOFFMAN (Publications of the American Economic Association, Vol. XI., Nos. 1, 2 and 3. August, 1896. Pp. 1-329). The Macmillan Company. Paper, \$1.25; cloth, \$2.00.

This work is a mine of statistical information relating to the population, viability, anthropometry, and the racial, social and economic conditions of the negro in the United States and incidentally in the West Indies; and the figures, culled with evident care from the most trustworthy sources and collected through personal

effort, are intelligently and impartially combined and discussed in a clear and attractive manner, so that, despite the scores of statistical tables, the book is easy reading from preface to conclusion.

In the first chapter, which relates to the growth and movements of the black and mulatto population, it is shown that the negro has failed to gain a foothold in any of the Northern States as an agricultural laborer; that in general he has remained in the South, contrary to the many predictions of wholesale migration; and that he does not readily lend himself to schemes of colonization, and has failed miserably in the most recent experiment of the kind (in Durango, Mexico). At the same time it is shown that the negro displays a tendency to segregate in certain sections in the South, while in the North, and to a less extent in the South, there is a tendency toward congregation in the cities.

To students of the negro problem the second chapter, 'Vital Statistics,' is of paramount interest. Here the author tabulates and discusses the rates of birth and death under various conditions among the blacks and compares them with the corresponding rates among the whites, calculates the expectation of life for blacks and whites, and examines fully the causes of mortality in both races. Summarizing the facts, it is pointed out (1) that the excess of births over deaths is greater for the whites than for the blacks in the Southern States; (2) that in the Northern States the blacks do not hold their own, since the deaths outnumber the births, the apparent increase in population being due to migration; (3) that for ten representative Southern cities the death rate for five years (1890-'94) was 20.12 per thousand for the whites, and 32.61 for the blacks, indicating a steady and apparently irresistible vital decline, both relative and absolute, on the part of the latter; (4) that the excess of negro mortality is greatest in the age period under 15 years, culminating among infants, and (5) that hence the number surviving to productive and reproductive ages is considerably less for the blacks than for the whites; (6) that the expectation of life among the blacks is from 12.5 to 17.11 years less than among the whites in the cities giving most reliable statistics; (7) that

the rates of mortality among blacks and whites are not materially affected by other conditions than those of race and heredity; and (8) that since emancipation, mortality among the blacks has steadily increased, while the white death rate has diminished. It is shown that the chief causes of excessive mortality among the blacks are (1) diseases of infants, including premature and still births; (2) consumption, which is increasing among the blacks and decreasing among the whites; (3) pneumonia; (4) scrofula and venereal diseases, which are much more prevalent among the blacks and which are increasing; (5) malarial fevers (contrary to general opinion); and (6) typhoid fever at the earlier ages. The observations collated indicate that smallpox is more prevalent among the blacks, chiefly through greater neglects of vaccination; that scarlet fever, yellow fever, appendicitis and carcinoma uteri, from all of which the negro is generally supposed exempt, occur, but less frequently than among the whites, as is the case also with insanity, suicide, measles, diphtheria, tumor-cancer and alcoholism; while the mortality from childbirth and puerperal fever is greater among the blacks by reason of ignorance and maltreatment. "The general conclusion is that the negro is subject to a higher mortality at all ages, but especially so at the early age periods. This is largely the result of an inordinate mortality from constitutional and respiratory diseases. Moreover, the mortality from these diseases is on the increase among the colored, and on the decrease among the whites. In consequence, the natural increase in the colored population will be less from decade to decade, and in the end a decrease must take place. It is sufficient to know that in the struggle for race supremacy the black race is not holding its own; and this fact once recognized, all danger from a possible numerical supremacy of the race vanishes" (page 148).

The third chapter is devoted to anthropometric facts, figures and opinions derived from various sources. The figures indicate that the weight of the black is somewhat greater and his stature somewhat less than the weight and stature of the white of the same class; that the lung capacity in the black is considerably less and

the frequency of respiration somewhat greater than in the white; that the lifting strength of the white is the greater, and that the vision of the black is inferior, though he is less liable to disease of the eye. The impressions and opinions of various students appear to indicate that during slavery the black was 'physically the equal if not the superior of the white, and this view has been fully sustained by the statistics of mortality, which also ranked him the equal if not the superior of the white thirty years ago' (pages 175-6); but that since emancipation the black has deteriorated materially, both in physical development and in viability. "And the opinion is warranted that * * * the tendency of the race has been downward. This tendency, if unchecked, must in the end lead to a still greater mortality, a lesser degree of economic and social efficiency, a lower standard of nurture and a diminishing excess of births over deaths. A combination of these traits and tendencies must in the end cause the extinction of the race" (page 176).

The fourth chapter deals with 'Race Amalgamation' in a statistical way, so far as the available data permit, but with abundant references to the opinions of students. It is recognized that the American negro 'is largely a cross between the African and the white male' (page 177), and that very little pure African blood remains; it is also recognized that, since the emancipation, the admixture of the races has been materially checked and is constantly diminishing, with a concomitant tendency toward the development of a distinctive race of mixed blood, to which the foregoing facts and figures apply, and of which the before-mentioned features and tendencies are characteristic. It is shown that the roseate dreams of radical Abolitionists thirty years ago concerning the absorption of the blacks, with attendant improvement in the whites, have faded as time has widened the chasm between the races; the shocking immorality of the blacks, as indicated by illegitimate births in Washington and elsewhere, is set forth in the records; and the physical deterioration of the black race is, at least implicitly, ascribed to the moral inferiority.

Under 'Social Conditions and Tendencies' it is shown that the blacks take kindly to religious

institutions, though education pervades their ranks more slowly, and that neither counteracts criminal tendencies so completely as has been hoped; it is also shown from ample statistics that crime is nearly thrice as prevalent among the blacks as among the whites, this relation holding even when the negro is compared with the most criminal nationalities. The statistics for different cities and sections appear to indicate also that crime is increasing among the blacks, though decreasing among the whites. A considerable body of data relating to lynching has been brought together, which seems to indicate that neither this summary mode of punishment nor the crimes for which it is the penalty are decreasing. Efforts are made also to tabulate the statistics of pauperism, and the tables indicate the great preponderance of pauperism among the blacks, though it is evident that the figures do charitable justice to this phase of the character of the alien race. Under 'Economic Conditions and Tendencies' the negro is considered as an agricultural laborer and as an industrial factor, and it is shown that he profits little, and, according to many opinions, suffers from education, and displays a lamentable lack of thrift and public spirit as a citizen, though filling fairly well a subordinate position in industrial society.

In the final chapter (a 'Conclusion' in name and in the fact that it ends the book, though not at all as a summary of the investigation) comparisons are instituted between the American negro and various other races, including the American Indians, the Maoris, etc.; the author not only concurring in, but adding weight to, the general opinion concerning the decadence of the lower races when brought in contact with the higher.

From a sociologic point of view, if not from that of the statician or economist concerned with great masses rather than inconspicuous (albeit important) principles, a criticism may be lodged against the book; and it may be stated the more starkly, *first*, because all or nearly all current statistical discussions of the subject are open to the same criticism, and *second*, because another Federal census is in contemplation, and it would seem especially timely to direct atten-

tion toward a little-considered factor in the negro problem. The author justly points out that during the days of slavery the amalgamation between the whites and blacks was illicit, and that the mulattoes and other mixed bloods were almost exclusively the progeny of white fathers and black or mixed-blood mothers, and his discussion of the vital and other characteristics of the American negro is based on these conspicuous facts; and he justly observes that, with the abolition of slavery, illicit amalgamation decreased enormously, and, so far as fruitful unions are concerned, has practically disappeared. He also gives slight recognition to the fact that amalgamation is proceeding slowly through intermarriage; yet he does not notice (although his statistics clearly indicate as much) that by far the greater part of the legitimate and productive unions are between black men and white women, rather than between white men and black women, as during slavery. Thus in Michigan, during the 20 years 1874-1893, 111 out of the 14,151 marriages were interracial, and of these 93 were between black or mulatto males and white females, leaving only 18 unions of the slavery type (page 198); and in Rhode Island, during the 13 years 1881-1893, there were 51 white females and only 7 white males in the 58 interracial marriages (page 199). So too, in the 23 cases of interracial marriage (excluding the sporadic unions) studied by the author, there were 19 white women to 4 white men (page 204). These ratios are in accordance with the casual observations of the reviewer, who has noted in addition (again leaving out of account sporadic and irregular unions) that many of the blacks who marry white women are among the leading representatives of their race, one being the most illustrious in American history, while in some cases at least the white wives are fairly representative of their race and sex. Now a question at once arises concerning the characteristics of the progeny of such unions, who may not be numerous but who represent a distinct class of our population; a question arises also as to whether these legitimate interracial unions are increasing, as the meager figures appear to indicate; and there are half a dozen collateral inquiries which will occur to sociologists, and perhaps to those sta-

ticians who, like the author of the memoir under notice, are given to considering the meanings expressed by figures as well as the figures themselves. This criticism, it will be observed, is of the constructive rather than the destructive sort; it does not tend to invalidate any of the results of Mr. Hoffman's excellent work, but, if well founded, indicates a direction in which the work might have been carried further advantageously.

W J MCGEE.

Les Aryens au Nord et au Sud de l'Hindou-Kouch.

Par CHARLES DE UJFALVY. pp. 488. G. Masson, Paris. 1896.

M. Ujfalvy is known as a diligent student of anthropology and an earnest disciple of Broca. He has the same implicit faith in the permanence of the physical type and its superiority over all other human traits for the purposes of classification and tracing descent. The feature beyond others, which he considers ranks in significance, is the cranial index. A nation, he observes, may lose its language, alter its social condition and deeply modify its blood by crossings; but it will always preserve the traces of its primitive physical type. Only through a long process of transformation, by which the encephalon is materially altered in its lines of growth, and thus changes the shape of its bony envelope, can a brachycephalic people, for instance, become dolichocephalic.

These are the leading principles of investigation which the author proceeds to apply to the Aryan tribes of Central Asia. The main topic is preceded by two introductions, the first geographic and historic, the second 'ethnologic, ethnogenic and biologic.' The former not only describes the geographic features of the region and its trade routes, but lays especial stress on the great *loess* formations and their bearings on human character and distribution. The primitive Aryan Iranians, he argues, were immediate neighbors to the ancestors of the Chinese.

The second introduction is largely historical. The author points out the wide variance in the skull-types of the modern Asian Aryans and seeks to explain it by various invasions and interminglings in ancient times, and biologic laws—ever faithful to his motto: "Il existe