well be regarded as evidence of a *single* Mendelizing factor, quantitatively variable.

If we set out by assuming that a Mendelian factor is invariable, then we are forced to assume, whenever genetic variation is observed in an organism, that this is due to an *additional* Mendelian factor. This is the real basis of the multiple factor hypothesis as applied to size inheritance, though not, of course, the historical one. But to reason thus is merely to pile one assumption upon another, which is not to advance science, whatever it does for a system or a terminology; but with these we are less concerned than with knowing the exact truth and in stating it as clearly and concisely as possible.

What now of human skin color, is this or is it not Mendelian in inheritance? At present I consider this largely a question of terminology. The *facts* appear to be very similar to those observed for body-size in rabbits, and for other quantitative characters in animals and plants. F_1 is intermediate; F_2 is also intermediate, but more variable than F_1. If we call this Mendelism, we shall need to explain that it is not the Mendelism of Mendel himself, but original Mendelism *plus* (1) the assumption of gametic purity, *plus* (2) the assumption of factorial constancy, *plus* (3) the assumption of factorial multiplicity.

W. E. CASTLE

BUSSEY INSTITUTION,
FOREST HILLS, MASS.,
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JAVEL WATER—A SIMPLIFIED AND CORRECTED SPELLING

IN his "Grand dictionnaire universel du XIXé Siécle" (Paris, 1873), Pierre Larousse tells us that there used to stand upon the banks of the Seine in the suburbs of Paris in what is now the "XVe arrondissement" a solitary mill, sheltered by trees, where bathers and fishermen used to rest and partake of refreshments. This mill was known as the "moulin de Javel" and the lexicographer elsewhere states that this word is a variant of *javeau,* which means an island of sand and mud, a sandbank, although in this instance it is no doubt a proper name. The word *javelle* (cf. English, provincial, gavel), signifying an unbound sheaf or a bundle of grain smaller than a sheaf, is of different origin.

Upon the site of the old mill the village of Javel was founded in 1777 by the Count of Artois, who established a chemical works. The first directors of the works, Messrs. Alban and Vallet, were the originators of Javel water, which they prepared in 1792 by passing a current of chlorine through a solution of 2.440 kilos of "sub-carbonate" of potassium in 17 kilos of water. Larousse also refers explicitly to the erroneous spelling *eau de javelle,* employed by some authors. Littré in his "Dictionnaire de la langue française" (Paris, 1873) employs this erroneous spelling.

Unfortunately, the dictionary of the French Academy (7th edition, Paris, 1878) sanctioned the spelling "Javelle" for both the name of the mill and the derived name of the bleaching liquor, adding error to error in describing the liquid as a solution of potassium *chloride* in water ("L'eau de javelle est du chlorure de potassium en dissolution dans l'eau").

With such authority behind it, it is not surprising that the *-elle* ending has come into very general use. Yet a number of the more careful French and English writers employ the correct form of the word. Among such are Girard in "La grande encyclopédie" (article "Chlorures décolorants"); Emile Bouant in his "Dictionnaire de chimie" (Paris, 1888); Moissan in his "Chimie minérale" (1904–6); Edmund Knecht in the Encyclopedia Britannica, eleventh edition (article "Bleaching"); and Sir Edward Thorpe in his "Dictionary of Applied Chemistry" (1912). In Germany and America, as far as I have observed, the erroneous spelling is universally adopted. And our dictionaries of the English language appear likewise to be unanimously wrong. Not even the New Standard Dictionary (1913), which gives the simplified spellings of the Carnegie board, makes the least reference to the shorter form of this word.

A certain amount of confusion is prevalent also regarding the signification of the term

"Javel water." Originally it meant the liquor prepared by action of chlorine on dilute potash solution. In so far as its bleaching effect is concerned such a liquor is essentially a solution of potassium hypochlorite. It was inevitable, however, that when, through the cheapening of sodium compounds, potassium hypochlorite was superseded by the sodium salt, the name popularly applied to the bleaching liquor should undergo a change in signification. The fact that sodium hypochlorite solution was already employed in pharmacy under the name of *Labarraque's liquor* could not affect this change. Pharmaceutical language is too esoteric and popular habit too persistent to render it possible for the pharmaceutical term to supplant the established usage of the textile trade. I take it, then, that we must expect the sodium hypochlorite-chloride mixture to continue to be known as "Javel water." Such confused statements, however, as the following—let us hope a slip of the pen—are not to be excused even in a writer whose subject is one relating to textile chemistry. It occurs at p. 234 of Pellew's "Dyes and Dyeing," an excellent popularizing exposition of the triumphs of synthetic chemistry in this fascinating field:

> The potash and soda compounds, known respectively as Labarraque's solution and Javelle water, are less active and powerful than bleaching powder, but have the same general properties.

It is to be hoped that Mr. Pellew's readers will not be misled by either his definitions or his spelling.

J. F. Snell

Macdonald College,
Quebec, Canada,
February 27, 1914

SCIENTIFIC BOOKS

Manual of Petrographic Methods. By Albert Johannsen, Ph.D., Assistant Professor of Petrology, the University of Chicago. New York, McGraw-Hill Book Co. 677 pages, 770 figures in text and as whole page plates. $6.00 net.

The methods of microscopic petrography, like other laboratory methods, have advanced steadily in number and in complication during the fifty years of their practise, keeping pace with the increasing number of workers, the aim at greater accuracy and the developments of the petrographic microscope and its accessories. The author states in the preface that "the desire of an increasing number of students for more complete information in regard to modern petrographic-microscopic methods than is to be found in any English work on the subject" has led to the preparation of this book, but the reviewer knows no more complete and up-to-date treatment of this special subject in *any* language, for in most cases such works combine the general and theoretical part with a description of the individual minerals, while in this work only the methods are dealt with, but with a thoroughness, especially regarding the applications of optical mineralogy, which is of great value to the advanced student and investigator. Beginning with a short introductory chapter on crystallography and a thorough treatment of stereographic projection (so necessary for some of the more recent microscopic methods), chapters follow on the transmission of light through crystals, with a very complete and practical treatment of such topics as lenses, the petrographic microscope and the innumerable accessories which are now available, while the following chapters, comprising 300 pages, or nearly half the book, give a very complete account of the practical methods of application of the principles and instruments previously described. A somewhat briefer but sufficient account of the determination of specific gravity, mechanical separation of rock minerals, microchemical reactions, preparation of thin sections, etc., fills the remaining pages. The book is clearly printed and compact, notwithstanding the extended text and many figures; it represents a vast amount of careful, discriminating and constructive work on the author's part, as, for instance, is shown by the bibliography at the end of each chapter, and should be invaluable in its special field.

John E. Wolff

Harvard University