the length of service pensions. What needs explanation is why they were established, why they were discontinued in the manner adopted and why they were not paid to those to whom they had been promised. Suppose that Mr. Carnegie in order to get better domestic servants and at lower wages had promised that those who wished could retire after twentyfive years of service with half wages. If he found that the arrangement did not work well or that he did not have enough money to keep up his establishment, he might very well have employed no new servants on these terms. But would he have broken his engagement with those who had served part of the time; and, if so, what would have been the decision of the courts if suit had been brought?

In his report Dr. Pritchett dismisses the breaking of the pledges of the foundation lightly with the single remark:

The experience of the year has confirmed in the judgment of the trustees the wisdom and essential justice of the action taken a year ago.

Now this is a truly remarkable, indeed an almost incredible state of affairs. The present writer has discussed the matter with some two hundred university professors in the course of the past year, and so far as he remembers not a single one of them regarded the action of the trustees as other than unwise and unjust. In the act of incorporation the objects of the foundation are stated to be to provide pensions of two kinds: (1) for long and meritorious service and (2) for old age, disability or other sufficient reason, and further "to do and perform all things necessary to encourage, uphold and dignify the profession of the teacher and the cause of higher education." In the method used to give up the pensions for length of service the foundation has certainly not fulfilled the obligations specified in the second part of its charter.

It is obvious that unless Mr. Carnegie greatly increases the endowment of the foundation it can not meet its present obligations. They obtain most of all in the case of the younger men now entering the academic career in view of its promises. It will doubtless be necessary to give up the retiring allowances, for age and confine them to disability. The present writer does not regret this, for reasons which he has fully stated (SCIENCE, April 2, 1909).

Retirement at the age of sixty-five has substantially the same drawbacks as retirement after twenty-five years of service. Men who are less competent or who are not in favor with the administration will be retired; and instead of security and loyalty, there will be unrest and bitterness. The president will be quick to retire professors because their pensions are not paid by his institution, but from an outside source. There is no more reason for retiring professors at sixty-five than justices of the supreme court. There should be pensions (or still better full salaries after long terms of service) for disability, but these should be paid by the university. It would have been far better if the Carnegie Foundation had given its income as an endowment to one institution after another for the establishment of a pension system. Its present financial difficulties would have been avoided, and the dangers of a centralized autocracy would have been escaped.

It is to be hoped that when the trustees of the foundation abandon the retiring allowances at the age of sixty-five years, they will do so in a manner that will "encourage, uphold and dignify the profession of the teacher and the cause of higher education."

J. MCKEEN CATTELL

SPECIAL ARTICLES

THE TYPE OF COLUMBINA SPIX

A FEW years ago I discussed the question of Columbina vs. Chæmepelia in The Auk,¹ contending that the designation of Columba passerina Linn. by Gray in 1840 as the type of Columbina was valid, and that his later designation of the same species as the type of Chæmepelia rendered Chæmepelia (Swainson, 1827) a synonym of Columbina (Spix, 1825). The genus Columbina originally contained four species, all described as new, one of

⁴Vol. XXV., 1908, pp. 301-306.

which (griseola) proves to be only a slightly differentiated subspecies of C. passerina. For many years, or until the custom came in of recognizing subspecies, the real status of griseola was that of a synonym of passerina, which up to a recent date² had a commonly recognized range extending from the warmer parts of the United States south through the West Indies, Central America and South America to Paraguay and Peru, thus including the type locality of griseola. When the original passerina came to be divided into numerous subspecies, griseola, as recognized by recent leading authorities, became Chæmepelia passerina griseola.

In my paper cited above I stated that I could "see no reason why Columbina griseola = Columbina passerina griseola (Spix) may not be properly taken as the type of Columbina, in accordance with rule d of Art. 30 of the International Code respecting the equal availability of species and subspecies as types." I find it is now questioned whether this statement, owing to its form, can be taken as really designating a type for Columbina, and take this opportunity of stating that this was its intention. To leave no doubt, I may here add: Columbina Spix, 1825; type C. griseola Spix = Columbina passerina griseola Spix.

But there are other complications hovering about the type of Columbina, and about the propriety of the above designation, on the ground that the question is one partly of zoology and partly of nomenclature. In other words, that griseola may not be a subspecies of passerina but possibly a distinct species, or a subspecies of some other species. This question could not well have arisen except for a mistake made by Bonaparte, in 1854, and followed by nearly all authors for the next half century. He recognized and described a species under the name "griseola Spix" which was not only not the griseola of Spix but bears to it no very close relationship, it being in reality the Columba minuta of Linnæus. To this extent,

² Cf. Salvadori, Brit. Mus. Cat. Birds, XXI., 1893, p. 477. and no further, is the type of *Columbina* a question of zoology; for the type of griseola Spix is still extant and proves to be a young female of the *passerina* group, or of "*passerina*" as formerly recognized.⁸

J. A. Allen

ANOTHER SEX-LIMITED CHARACTER IN FOWLS

In view of the number of sex-limited characters recently recorded, the report of another one may be of interest even though the experiment has not yet gone beyond the first generation.

The Brown Leghorn fowl has nearly the same color as the wild *Gallus bankiva*. It is a sexually dimorphic breed, with black and reddish or yellowish-bay the chief colors in the male, and with the female lighter in color and showing a characteristic black and yellowishbrown pepper-and-salt pattern on the back and wings. The Columbian Wyandotte has both sexes white, with black in the neck, wings and tail.

When these two breeds were crossed there were three different classes of birds in the F_1 generation. There were brown females resembling the Brown Leghorn females, and gray males and females resembling the Columbian Wyandottes but having considerable black mixed with the white ground color, thus giving a grayish effect. These came in the following way:

Brown Leghorn & + Columbian Wyandotte 9

 $= 10 \text{ gray } \mathcal{J} \text{ and } 8 \text{ brown } \mathcal{Q}.$ Columbian Wyandotte $\mathcal{J} + \text{Brown Leghorn } \mathcal{Q}$ $= 9 \text{ gray } \mathcal{J} \text{ and } 3 \text{ gray } \mathcal{Q}.$

= 9 gray 8 and 3 gray 2.

It will be seen that these results agree with Goodale's experiment,¹ since the gray males show considerable red or brown on their backs, as was the case with the corresponding birds in his cross between White Rocks and Brown Leghorns.

The gray females, however, unlike his barred F_1 females, also show a little brown, though this is not conspicuous. They also show some

⁸Cf. Hellmayr, Abhandl. d. II. Kl. d. k. Akad. Wiss., XXII., Abb. iii, 1906, p. 697.

¹ Proc. Soc. Exp. Biol. and Med., Vol. 7, No. 5, May 18, 1910.