worm (*Alabama argillacea* Hubn.), it may be worth while to place on record the fact that this insect has been very abundant in parts of the south this year. Here at least, and if one may judge from observations from a car window, in northern Alabama as well, the cotton has suffered also complete defoliation.

J. R. WATSON

FLORIDA AGRICULTURAL EXPERIMENT STATION

TRANSPLANTATION OF OVARIES

TO THE EDITOR OF SCIENCE: May I have space in your columns to say a few final words regarding the results of transplantation of ovaries?[1]

Professor Castle has objected to my application of the term mongrel to guinea-pigs used by him in experiments which he claims overthrow my results on chickens.[2] My authority for the use of this term is the following extracts from his paper.[3]

The ovaries were removed from an albino guinea-pig and in their stead were placed two ovaries, one from each of two black guinea-pigs. The female bearing the engrafted ovaries was subsequently bred to an albino male and of the resulting six young, all were black and red, and one had a white foot. In explanation of this white foot, it is stated that "*Spotting characterized the race from which the father came. He was himself born in a litter which contained spotted young. . . .*"[4] Therefore the male was a mongrel.[5]

[1] SCIENCE, N. S., 1911, XXXIII.

[2] SCIENCE, N. S., 1911, XXXIII.

[3] Publication No. 144, Carnegie Institution, pp. 9–10.

[4] Italics mine.

[5] In an article by Professor Castle appearing in *The Popular Science Monthly* under date of May, 1910, it is stated that in such an experiment six young resulted and they were "*all black*" (italics mine). From the data in my hands it is impossible to conclude whether this is the same experiment as that quoted above, and to which it bears a striking similarity. If it is the identical experiment, and this I assume in view of his more recent statement (Publication No. 144, Carnegie Institution, 1911, p. 8) that but two of his successfully operated animals had borne young, the article in *The Popular Science Monthly* must be inaccurate.

In the other instance, an albino female was spayed and her ovaries replaced by the ovaries of a brown-eyed cream guinea-pig. The albino female was then bred to an albino male and two albino and one brown-eyed cream offspring resulted. In attempting to explain this result, it is stated that "*albinism occurred as a recessive character in the particular brown-eyed cream stock used. . . .*"[4] So it follows that at least one of the females used in this experiment was a mongrel, and was therefore, as in the first experiment, entirely unsuited to furnish any reliable information from the standpoint of foster-mother influence.

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MOULTING AND CHANGE OF COLOR OF COAT IN MICE

MR. C. C. LITTLE has, in a recent number of SCIENCE (October 27, 1911), taken exception to certain statements that I made in an article on the inheritance of coat colors in mice. He believes that the unusual patterns that I have described, especially in black mice, which I attributed in part to a heterogeneous condition, are only temporary effects and are due to moulting. That the coat may appear spotted at times of moulting is too familiar to any one keeping these animals to call for comment. But that the patterns that I described are not due to this was shown by the fact, stated in my paper, that the fully grown hair was in all cases studied under the microscope and the pigments in the hair recorded. Moreover, the cases described were not incidental to the coat-changing period, for the pattern remained for several months until, in fact, a new moult appeared.

It is well known that black mice contain both black and chocolate in the hair, even when they produce only black mice. Hence the opportunity is furnished for the local excess of one or of the other pigment to become apparent. That such effects are due to some "physiological conditions" present at the time of moulting is very probable, and was mentioned in my paper. Furthermore, in

a series of experiments in which black and chocolate mice were crossed through several generations, the spotting in the heterozygous mice—known to be such—was very prevalent. Finally, that even dilute colors are themselves modifiable by the condition of the animal when the next coat is formed was illustrated by some of the cases that I described, and is a phenomenon well known to breeders of animals. It is true that such cases do not show the animals to be heterozygous and therefore the presence of spots can not in itself be taken as a safe criterion of that condition. But my evidence showed that heterozygous mice frequently give evidence of their dual nature. In other cases also, as in the pomace fly, where I have found a dominant and a recessive character both present in the same individual, breeding tests have shown such individuals to be heterozygous.

T. H. MORGAN

QUOTATIONS

THE ROYAL SOCIETY

AT the anniversary meeting of the Royal Society yesterday afternoon the president made an announcement of unusual interest. On July 15 of next year the society will have been in existence for two centuries and a half; and it has been decided to celebrate the occasion in the manner prescribed by custom for such functions of retrospection and congratulation. For this particular function a new descriptive word seems necessary. It is not a jubilee, or a centenary, or a bicentenary, or a tercentenary, with all of which we have been made familiar, but something compounded of a bicentenary and a jubilee. Some compendious title seems to be required, but Sir Archibald Geikie managed to do without one, and what the Royal Society has been unable to invent it would be rash on the part of any other authority to supply. We must all be content to say that the Royal Society is going to celebrate the 250th anniversary of its foundation. The chief universities, academies, scientific societies and other institutions in this country, in the dominions and abroad are to be invited to send delegates to take part in the ceremony, of the importance of which the king, as patron of the society, has been pleased to express his appreciation. In view of the high place held by the Royal Society among the scientific institutions of the world, and of the eminent services which by universal consent it has rendered to science, there can be no doubt that the response to its invitation will be ample and generous. Next year will witness a large and brilliant gathering of men of science from every part of the civilized world, eager to testify to the respect which the long history of the Royal Society has inspired among all seekers after natural knowledge. Though the principles of the great quest are always the same, two and a half centuries bring many and profound changes in methods and conditions. Many ideas once cherished have to be dropped, and many new ones assimilated. Fundamental theories become outworn, and the most fruitful hypotheses, having served their purpose, have to give place to newer generalizations. The best proof of the vitality of the Royal Society is that it has survived all these transformations, and that it holds its place to-day, as in earlier years, in the van of the great army of students of the laws and structure of the universe.

Though the progress of science has been continuous through the long period covered by the lifetime of the Royal Society, the rate of progress has not been by any means uniform. The great intellectual upheaval of the renaissance gave a powerful impulse to scientific inquiry, after centuries of extremely slow progress. But that special impulse in turn exhausted its strength, and was followed by a period of smaller achievement. The end of the eighteenth century saw the beginning of another great era of activity, which continues to the present day in shapes that more and more conform to Bacon's contention that the pursuit of knowledge should be directed to the improvement of the conditions of human existence. Men now living have been witnesses of a great transformation, at least in