

THE HURST COLLECTION OF GENETIC LETTERS
(Now in the Cambridge University Library)

RONA HURST

13 Worthing Road, Horsham, Sussex

Received 15.xi.74

DURING the final decade of last century three pioneers in the study of heredity, William Bateson, C. C. Hurst and Miss E. R. Saunders, were working in England and had between them already discovered a number of the principles of inheritance Gregor Mendel had found in his classic studies of culinary peas. When Mendel's long-disregarded paper was brought to light by de Vries, Correns and Tschermak in 1900, the three English workers saw at once its potentials and its value with regard to their own work, and so "Mendelism" was born in this country.

Hurst had been working on inheritance in orchid hybrids, studying those raised by Fellows of the Royal Horticultural Society, of which he was an ardent member, as well as his own experimental hybrids. Unable to take up his place at Cambridge owing to an attack of tuberculosis towards the end of his school career, he worked at home and in 1897 brought out his first big paper at the R.H.S. In this he interpreted his findings of the reappearance of characters in later generations of orchids as due to the behaviour of chromosomes as found by Weismann, a view he never forsook, and after the war he went up to Cambridge in 1922 to work on the new dual science of cytogenetics.

During the intervening years Hurst had built up a considerable Experiment Station at his home at Burbage in Leicestershire, where poultry, rabbits, pigeons, horses and other animals as well as many plants were bred in large numbers, as described in the collection of his papers published as *Experiments in Genetics* (Cambridge University Press, 1925). Dealing with so many different types, he had a wide correspondence, not only in Britain but also with early geneticists of Europe, America and other countries. Most fortunately he had the habit of keeping the more important letters for future reference. These naturally grew into quite a large collection, which happily escaped the ravages of paper salvage in two world wars. I have recently brought together and sorted these letters and have presented them to the Cambridge University Library for safe keeping and consultation (reference number Add. 7955).

From 1902 onwards Bateson and Hurst worked very closely together and 234 letters from Bateson to Hurst are preserved on a variety of subjects. Also a collection of letters from Hurst to Bateson has now been found by Dr A. G. Cock of Southampton University in his search for material for his forthcoming biography of Bateson. These are on a microfilm made by Professor William Coleman from Bateson material in the keeping of his son, Dr Gregory Bateson, and deposited in the library of the American Philosophical Society. Photocopies of these have been made, and by kind permission of Dr Bateson and Dr Whitfield Bell, Jr, have been placed with the Bateson letters in the Hurst Collection at Cambridge. These are

particularly interesting as, fitting in with the letters from Bateson, they make up a complete dialogue, especially from the periods when Hurst was working on his classical experiments on human eye-colour and horse coat-colour, which disproved Karl Pearson's contention that Mendelism did not apply to dogs, horses or humans.

The other geneticists are well represented, and after the war the new factor of cytology in the experiments brings in another set of correspondents and topics. The disastrous effects of the two wars and the great depression of the thirties on the continuation of scientific experiments are much in evidence in the letters from all countries. Altogether there are around 2000 items with 157 individual correspondents involved, including all the leading English, American and European geneticists and other well-known biologists, forming a continuous history of genetic events and people from 1895 to 1947, the year of Hurst's death. A manuscript accompanies the letters, linking them together and describing current events at the time of writing, with any references, so far as possible.

As a cousin, I was conversant with Hurst's experiments from childhood, and when we married after the war I worked with him in the biological laboratories at Cambridge for 12 years in the twenties and thirties. As an early member of the Genetical Society (to which I still belong) I had personal contact with many of the writers of the letters, especially Bateson.