CORRESPONDENCE.

To the Editors of 'The Observatory.'

Jeremiah Dixon and Others.

GENTLEMEN,—

May I offer for publication some notes by way of Addenda and Corrigenda to an historical article on the Greenwich Assistants that appeared in your Magazine in December last?

The mention in that article of Jeremiah Dixon, the colleague of Charles Mason, Bradley's Assistant, as observer of the Transit of Venus of 1761, and in other enterprises, has led to the elucidation of a strange, and evidently false, statement about that gentleman, to be found in Lalande's *Bibliographie Astronomique* published in Paris in 1803. It is there definitely stated, in mentioning a paper by Mason and Dixon, "*Dixon était né dans une mine de charbon.*" This translated into English, "Dixon is said to have been born in a coal mine," appeared in the biography of Mason written by Miss Agnes Clerke in the 'Dictionary of National Biography' and, because it seemed remarkable if a fact, was copied into the article in your pages. It there came to the notice of the present-day head of the Dixon family, Mr. Waynman Dixon, M.I.C.E., of Great Ayton, Yorkshire, who did not accept the statement as correct and has supplied information about his great grand-uncle, derived partly from family tradition, partly from published local history, that shows the improbability of Lalande's statement and gives a clue to its origin.

Jeremiah Dixon was born at Cockfield, County of Durham, on July 27, 1733, the son of Ralph Dixon, a colliery owner, a member of a Quaker family, and evidently a man of mathematical taste and ability, as was his son Jeremiah. When it was known that expeditions were being organized to observe the Transit of Venus of 1761, Jeremiah Dixon was recommended to the Royal Society as a possible observer by one Emmerson, of Bishop Auckland, said to have been a well-known scientific man of that time, and family tradition runs that Jeremiah was called up for examination at the Woolwich Academy, and when he was asked at which University or at what place he learned astronomy, he answered, "at neither University, but at my pit cabin at Cockfield Fell." If we may assume that this answer appeared somewhere in print, with the words "*where I was born*" added, and that Lalande saw this, and mistranslated, or misunderstood, the sentence, we have a not unreasonable explanation of his statement.

Among other details relating to the family it is said that George Dixon, the elder brother of Jeremiah, was the first

inventor (about 1760) of coal-gas as an illuminant, and that Capt. James Cook visited the family home at Cockfield, and that, to commemorate the visit, his initials with the date were carved on a remarkable sun-dial made by Ralph Dixon, which remains to this day. The achievement of Mason and Dixon most remembered is the fixing of the boundary-line between Maryland and Pennsylvania, still known as the Mason and Dixon line, and it is believed by members of the Dixon family, as it is by others, that their name is the origin of the phrase "Dixie-Land," as was suggested in the article. It appears, however, that there is an alternative explanation of the phrase which may have more probability *, but still the Dixon tradition may not be wholly without foundation.

It is a coincidence that Mr. Waynman Dixon has had, like his ancestral relative, a connection with observation of a Transit of Venus. In the year 1874, he was, as an engineer, professionally engaged in Egypt, and there chose the site, conveyed the instruments, built the piers, and arranged the camp on the Mokattam Hills for Capt. Orde-Browne, the leader of the British Expedition to Egypt. Mr. Dixon would have taken part in the observations, but was unexpectedly called away before the event. His name (spelt incorrectly) is mentioned in this sense in the 'Volume of British Observations of the Transit' (p. 261).

A mistake of another kind has led to acquaintance with the present representatives of another personality, Joseph Linly (*sic*), mentioned merely as having been Assistant to Maskelyne in the years 1781–1786. The name is written in this way in Maskelyne's papers, but on seeing this in your pages, his great grandson, Mr. W. M. Lindley, F.R.A.S., of Padstow, Cornwall, pointed out that it was evidently his great-grandfather who was meant, and that the name should be spelt otherwise, though he had reason to think that for a time, at least, Maskelyne's Assistant did write Linley or Linly, and reverted to an earlier spelling with a *d* after he left Greenwich. Joseph Lindley, of Heath, in Yorkshire, was born in 1756. Why, or through whose influence, he came to Greenwich is not known, but he was evidently a useful man there, for after he had left the Observatory in 1786, Maskelyne wrote to Sir Joseph Banks, "Having parted with Mr. Linley I at present make all the observations myself, and cannot attend the meeting of the Royal Society." Also in the contemporary literature relating to Mudge's chronometer, the Count de Bruhl, writing of a visit to the Royal Observatory to compare time-keepers, says, "We were very politely received by Mr. Linley." His name is mentioned by Argelander as one of a few who made observations of Algol, to prove its periodicity as suggested by Goodricke. After leaving the Observatory, Lindley took up

* See 'Glossary to Breitmann Ballads' (1898) by Nicholas Trübner.

surveying, and with the goodwill and help of General Roy he made a topographical survey of the County of Surrey and produced what may be considered an early Ordnance Survey Map. Those who know Blackheath may be interested to know that he married (his second wife) a daughter of Michael Searles, the architect who designed and built the range of elegant buildings known as the Paragon that adorns that neighbourhood. His descendants have had distinguished careers as engineers, and his great-grandson, who is of that profession, is an amateur astronomer. Members of Lindley's family have lived in Blackheath for many years past, and there is in their possession a pastel-portrait of him by Russell, the famous artist of the end of the eighteenth century, an amateur astronomer whose drawings of the Moon are preserved in the Radcliffe Observatory. The story in the family is that Russell wanted some help of an astronomical or mathematical kind that Lindley supplied, and in return Russell presented him with this picture by his own hand.

Some facts of minor importance relating to others mentioned in the article of last December may be added. Maskelyne's Assistant, Wm. Garrard, became a Quartermaster of Instruction at the Royal Naval Asylum at Greenwich (Royal Hospital School?), and a mathematical paper by him is to be found in the Philosophical Transactions. On page 395 of the article the name of Dymond is inadvertently printed instead of that of Bayly as having left the Observatory temporarily to observe the Transit of Venus. The mistake is obvious from other passages, but the suggestion made as to his substitutes is not supported, for Bayly's place was filled during his absence by Maskelyne's friend, the Rev. Malachy Hitchings. Thomas Firminger, whose name should be so spelled, and not Ferminger, appears to have left the Observatory at the end of 1807 or in 1808. Many papers on mathematical and astronomical subjects were contributed by him to Tilloch's 'Philosophical Magazine' between the years 1811 and 1819 (and a few earlier), from which it is learned that he became "Master of an Academy for the instruction of a limited number of young Gentlemen, in the theory and practice of Mathematics and the Mathematical Sciences." Frederic W. Simms, Pond's Assistant, who resigned when Airy became Astronomer Royal, apparently through pique or disappointment because he was not made First Assistant under the new regime, became a railway engineer, and had much to do with the making of the South-Eastern main line from London to Dover. *John* Henry Belville apparently came to Greenwich with Pond as a junior member of the staff in 1811, and began keeping a weather journal unofficially, and the records of rainfall made by him a few years later and continued until the meteorological department was initiated in 1841 are valuable. Rogerson, Assistant under Pond and Airy, prepared and published an annual after the style

of Old Moore's Almanac, and it is rather surprising that Airy permitted this to appear with the words "Royal Observatory" on the cover. The name of the Director of the Madras Observatory was *Thomas* Glanville Taylor. Correction of an initial is necessary in two places on page 396.

I am, Gentlemen,

Yours faithfully,

Blackheath,
1926, October.

H. P. Hollis.

P.S.—Since the above has been in type, it has come to my knowledge that the Rev. Dr. Walter K. Firminger, Vicar of Padbury, Buckinghamshire, who has been recently appointed Chaplain of Hampton Court Palace, is a grandson of Dr. Thomas Firminger, Maskelyne's Assistant, and from him the following interesting information has been received. The Firminger family descend from Kentish farmers, and Thomas Firminger was born at Egerton in that county in 1775. He married Miss Elizabeth Shepperd and had three children, the eldest son being the father of the Rev. Walter Firminger and the Rev. J. H. Firminger, who succeeds him as Vicar of Padbury. A daughter of Dr. Thomas Firminger married Dr. Dyer, and Sir Wm. Thistelton Dyer, formerly Director of the Royal Botanic Gardens at Kew, was their eldest son.

There is a story in the family that when George III. visited the Royal Observatory (probably on 1805 June 3) he asked Dr. Firminger his oft-quoted question as to how the apple gets into the dumpling? The Doctor's reply is not recorded, but it is said that the King offered him knighthood on the spot.

Dr. Walter Firminger says that his grandfather for some years conducted a "coaching" establishment for the Indian Civil Service in connection with Haileybury. There is a letter in vol. xxxvi. of your Magazine (p. 478) in which is given the inscription on Dr. Firminger's tombstone at Edmonton. Dr. Firminger lived at Warren Lodge in that parish in the latter part of his life, and died there in 1861.

Diffuse Matter in Interstellar Space.

Gentlemen,—

In the October number of the *Observatory*, Prof. Eddington makes a belated and not over-enthusiastic concession of priority to me in respect of the general physical ideas of gravitational instability and the formation of nebulous condensations in a uniform diffuse medium. He makes no attempt to answer the first half of the letter I had written to the August *Observatory* (error of 10^{10000}), and concedes the main point of the second half of my letter (argument in a circle) by his admission that the 150 parsecs (or thereabouts), which appeared at the end of his Bakerian