Queries

REV. THOMAS BAYES, ETC.

Before I make my Query let me second the proposal made in p. 456, preceding, that decision should not be announced on subjects which cannot be discussed. It is not to the credit of our age that abstinence on this point is necessary for peace : but it cannot he denied that on all subjects on which men think warmly it is openly avowed, by four persons out of five at least, that opinions contrary to their own are *offensive*. A century and a half ago opinions might be openly stated, and *opinions* about opinions as openly : we have rescinded the second permission, and are therefore obliged to rescind the first. We are a tender and ticklish race. I forget what *illionth* of an inch Newton found for the thickness—or rather thinness—of a soapbubble; but the skin of an educated man will beat it in time, if we go on as now.

Unquestionably no banner of any side in religious or political controversy has ever been displayed in "N. & Q." Whether this be due to the discretion of the contributors or to the suppression of the editor is among the secrets of the editor's desk; and had better remain so. But there is a diminutive of the banner called a *banderol* or *bannerol*, of which I believe each knight had one for himself; and this is sometimes half unfurled; and more frequently of late than in former years. In the very admonition which I now second there is a division of the members of one church into "High Churchmen and Puritans," which is very like a banderol; though perhaps all that is meant is, as in Swift's celebrated case, that the piebald horses of all degrees of mixture shall by common intendment be included under black and white horses.

There are many ingenious ways of unfurling the banderol. A person may contrive to let us know that he thinks &c. is &c. and not &c. by his mode of informing us that "the pages of 'N. & Q.' are not the place to discuss whether &c. be &c. or &c." Again, there are clever modes of eliminating all but the opinion which is to be insinuated. "Grandmama," said the little boy, "I wish one of of us three was hanged; I don't mean pussy and I don't mean myself." This little boy, now grown up, has written several articles in "N. & Q." and some of no mean merit: and he writes under more than one signature.

Your journal is a kind of public pic-nic, at which each person is expected to present his dish quite plain, without any condiment except salt. There are difficulties about any other arrangement. "Ah!," said an epicure at a public table, "Peas! the first this season! Capital!"—shaking pepper over them all the time. His opposite neighbour thereupon scattered the contents of a little box over the dish, quietly observing, "Sir, you like pepper; I like snuff." *Nec lex justior ulla.*

I was led to these reflexions by a Query which I have to make, in which, by very management I might have shaken the flag of heresy in the faces of the orthodox of all varieties. In the last century there were three Unitarian divines,

each of whom has established himself firmly among the foremost promoters of a branch of science. Of Dr. Price and Dr. Priestley, in their connexion with the sciences of life contingencies and chemistry, there is no occasion to speak: their results are well known, and their biographies are sufficiently accessible. The third is Thomas Bayes, minister at Tunbridge Wells, where he died in 1761. Whiston belongs to an older period, though he must have been long the contemporary of Bayes, and so does Humphrey Ditton. It might be made a Query which wrote *most*, Whiston or Priestley. I see Priestley's writings set down as making seventy octavo volumes, and the Whiston list was too long for the *Biographica Britannica!* Could any good reference be given for *complete* lists of the writings of both.

To return to Bayes. I want to find out more about him: and therefore state all I know. He first turns up, in 1736, as one of the writers in the celebrated Berkelian controversy about the principles of fluxions:-

"An introduction to the Doctrine of Fluxions, and defence of the mathematicians against the objections of the author of the Analyst, so far as they, are designed to affect their general methods of reasoning. London: printed for J. Noon . . . . 1786, 8vo."

This very acute tract is anonymous but it was always attributed to Bayes by the contemporaries who *write in* the names of authors; as I have seen in various copies: and it bears his name in other places.

Whiston, in his Autobiography, (p. 426., 2nd ed.), mentions a conversation he had at Tunbridge Wells with Bayes in 1746. He calls Bayes the successor of Humphrey Ditton, who it thus appears was also Unitarian.

But the work on which the fame of Bayes will rest is his paper in the Philosophical Transactions for 1763, an the supplement in the volume for 1764. These papers were communicated after Bayes's death by Mr. Richard (afterwards Dr.) Price. They are the mathematical foundation of that branch of the theory of probabilities in which the probabilities of the future are matter of calculation from the events of the past. Bayes shows a very superior mathematical power: and Laplace, who makes but slight mention of him, is very much indebted to him. More justice has been done by Dr. C. Gourand, in his short *Histoire du Calcul des Probabilités*, Paris, 1848, 8vo.

'Bayes, géométre anglais, d'une grande pénétration d'espirit, détermina directement la probabilité que les posibilités indiquées par les expériences déjà faites sont comprises dans des limites données, et fournit ainsi la première idée d'une théorie encore inconnue, la théorie de la probabilité des causes et de leur action future conclue de la simple observation des événements passées.

Bayes gave more than the *premiére idée:* he worked out a method for solving problems involving large numbers of cases: not so easily used as Laplace's method *helped by tables*, but far more easy than could have been expected. Accordingly, Bayes is one of the chief leaders in the mathematical theory of probabilities. What he did was of small extent, judged by paper and print, but of fundamental importance and wide consequence: he is of the calibre of De Moivre and Laplace in his power over the subject. He chose to keep his researches to himself, and they would probably have been lost but for Dr. Price:

of whom I may add that he appears as a far more powerful mathematician in his explanations upon Bayes than in any part of his own writings on his own subjects.

I have ascertained that there is no chance of any of Dr. Price's papers being in existence, at least of those which have any reference to the time at which Bayes was alive. A. De Morgan

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