

"EUREKA" AND THE FORTY-SEVENTH PROBLEM

By W. Bro. D. B. Wallace, 4th August, 1911

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I may state at once that my object is to ascertain whether we Freemasons have or have or have not any authority for using the word "Eureka" in connection with the I.P.M.'s Jewel.

It is a trite saying that this is an age of progress; it is also an age of doubt, scepticism, enquiry, and criticism; and, if Freemasonry is to stand the test of criticism and last through the ages, as we all firmly hope and believe, it must be prepared to alter and correct any small errors and inconsistencies which have crept into its ceremonies. I use the words "crept in" advisedly, as I do not believe the originators of our ceremonies perpetrated such blunders as appear in some of our rituals, and it is rather astonishing how Freemasons-presumably men of education-will write and publish such glaring errors.

A Grand Lodge officer of high rank, to whom I was speaking of these errors, remarked: "There are so many of them that if we were to begin to correct them, there is no saying where we would end." To me, this is no excuse. If there are errors which offend some of the brethren, and possibly lessen their respect for our own institution, the sooner they are corrected the better, and I feel assured they can be corrected without interfering with the landmarks of our ancient usages and customs.

That which first drew my attention forcibly to these errors, and the advisability of correcting them, occurred some years ago in Lodge Hokianga, of which I was then the Master. I had the pleasure of initiating a Westleyan clergyman, and on passing him to the Second Degree I explained the T.B. to him according to Emulation Working. After the Lodge was closed he whispered to me, "You surely don't expect me to believe all that." I was aware that the explanation was not quite in accordance with Holy Writ, but his remarks led me to investigate a little further, and I found more disagreement than I had expected. Happily, the Grand Lodge of New Zealand, in issuing a ritual, has altered this explanation, and where not quite in accord with or supplementing the words of the sacred volume, qualifies its remarks by adding the words "according to our traditions." I do not intend pointing out any of these errors, as every thinking brother can find them for himself, but will confine myself to the question of which I have given notice.

The question is in two parts: "Did Pythagoras discover the 47th Problem: and did he use the word 'Eureka' on doing so?"

Without professing to be a student of ancient history, I may say that a few years back when I first heard the word "Eureka" coupled with the name of Pythagoras, I metaphorically pricked up my ears and thought surely this was not correct. I have consulted all the authorities on this subject which I can find, and they have strengthened my conviction.

The following is a very concise account of what is known of Pythagoras, taken from an Encyclopaedia:-

"Pythagoras flourished in the sixth century B.C. He travelled extensively in Egypt and other countries, and on his settling at Samos formed the Pythagorean School of Philosophy, taught the doctrine of metempsychosis, or transmigration of the soul from one body to another, forbade his followers to eat flesh or beans and inculcated the practice

of many moral virtues, and of self-examination. He was well skilled in geometry, and is said to have invented the multiplication table, but this is extremely doubtful; and he and his followers so glorified the science of numbers that they declared the elements of numbers to be elements of existence. He was acquainted with the properties of the 47th Problem, If he was not the first to demonstrate them, and the numbers 3, 4, and 5 were called the Pythagorean numbers. It is, however, pointed out by some of the authorities that these were known to the Egyptians ages before his visit to Egypt, and he probably got his knowledge there. A ! great deal of obscurity rests on the life of Pythagoras, and many writings were forged in his name, therefore too much credence should not be given to many of the claims made by him."

While not denying that he may have been the first to demonstrate this problem, I have been unable to find any record of his having used the word "Eureka" in connection therewith, although it is stated that he sacrificed an ox on this occasion.

On the other hand all ancient histories and books of reference state that the word was used by Archimedes on his discovery of the means of ascertaining the density of metals by their displacement of water. The following short account is taken from the American "Encyclopaedia":-

"Archimedes, the most celebrated of mathematicians, born at Syracuse about 218 B.C., is said to have been a kinsman of King Hiero, though he does not seem to have held any public office, but devoted himself entirely to science. We know that he enriched the sciences with discoveries of the highest importance, on which mathematicians have founded their methods of measuring curved surfaces and solids. Archimedes is the only one of the ancients that contributed anything satisfactory on that on the theory of mechanics and hydrostatics. He first established the truth that a body plunged in fluid loses as much of its weight as is equal to the weight of an equal volume of the fluid. It was by this law that he determined how much alloy the goldsmith, whom Hiero had commissioned to make a crown of pure gold, had fraudulently mixed with the metal. The solution of the problem presented itself to him as he was entering the bath, and he is reported to have been so overjoyed as to have hastened home without waiting to dress, exclaiming 'Eureka!' 'I have found it!' 'I have found it!'"

It has been objected that the word "Eureka" was a common Greek word signifying "I have found it", and would be in constant use. Why, then, do historians make such a strong point of Archimedes using it on this occasion, and had Pythagoras used it on his demonstration of the 47th Problem would they not have stated this also?

As to whether Pythagoras was a Mason or not has to be considered in two ways. Did Masonry exist in those days as a speculative science, or was Pythagoras an operative mason? There is no account, as far as I am aware, of speculative Masonry existing at that time, although his followers were bound together by an oath, but as to the conditions of that oath, or what was required of them we have no information. And I think it can be taken for certain that he was not an operative mason. He called himself a philosopher, and his followers (300) were all from the ranks of the noble and wealthy.

I think, W. M., that the weight of evidence is very much against Pythagoras having used the word "Eureka" in connection with the 47th Problem, and if I am correct it would be better to cease calling the I.P.M.'s Jewel by this name.