

## ELEMENTARY ELECTRICITY.

BY MR. G. D. BLY, MECHANICAL AND ELECTRICAL ENGINEER,  
MONARCH SUPPLY CO.

Mr. Chairman and gentlemen:—I feel that we cannot give justice to such a great subject as this, in the short time we have at our disposal. When asked by our Secretary to give this paper, I hardly knew where to begin, as the subject is so broad.

I do not propose to keep you very long with the paper itself, but I sincerely trust what I have to say will prove of interest and value and that you will discuss the subject fully and freely, because, after all, the discussion is the real essence of any such meeting as this. You need have no difficulty in discussing the question to almost any length, because electricity is the most universal phenomena with which we have to deal.

The exact nature of the electricity which makes itself evident in so many ways has never been determined. Many surmises or theories have been advanced, but none have yet been able to stand the test of close examination. But by experimental evidence (which has been gathered for decades) we have been able to determine some of the laws which govern the action of electricity, though we do not know its constitution, very much as we have learned the laws of gravitation though we do not know what gravity really is.

The etymology and use of the word "electricity" have developed in parallel with the experimental growth of the science which bears its name. Springing from the Latin name for amber, *electricus* or *electrum*, the adjective electrical comes immediately from the word "electric" which was used in a book published in 1600 by Dr. Gilbert (the great scientist of Queen Elizabeth's reign), to designate the attraction for light bodies like chaff and bits of paper which amber and similar substances exhibit when briskly rubbed. The original discovery of this electrical property (or property of the amber) is often attributed to a Greek philosopher (one of the seven wise men of Greece) who lived about 600 years before the Christian era, and the meagre reports of whose philosophy are thought by some to contain the earliest records of its observation that have come down to us. It is probable, however, that a knowledge of this peculiar property of amber, and possibility of other bodies, was one of the well guarded secrets of the priesthood of that day. From the word "electric" also comes the word electricity. Since the day Dr. Gilbert first applied "electric" to a particular phenomenon, our knowledge of all the sciences has widened, and with the widening has come an equal advance in the knowledge which was represented to the ancients by that one peculiar property of amber and similar bodies. The term "electricity" is, therefore, not