

teriously generated or induced as we say in the secondary. This induced current produces effects very closely analogous to those of frictional electricity. You perceive the sparks passing between the wires on top of the coil, these wires being in fact the termination of the secondary coil. I will ask a number of persons sitting near to join hands; and the two end ones to hold these handles. They do so—you all saw the contortions, and perhaps heard the faint approach to a scream—and we know that some strange feeling must have been felt. [The lecturer here placed a coin in a vessel of water and connected the liquid with the coil. He invited several to take the coin out; and many tried, but each one writhed and wiggled like a hooked fish, and finally abandoned the attempt.]

It remains to be said, that in the applications made of electricity on a large scale, other sources of force must be sought beside simple batteries. Machines have been constructed by which intense currents are generated. They consist essentially of a coil of wire or a series of coils, made to revolve in the presence of a powerful magnet; by some means, a current of electricity of great intensity is generated in the coils, and this is led off by wires to light the town.

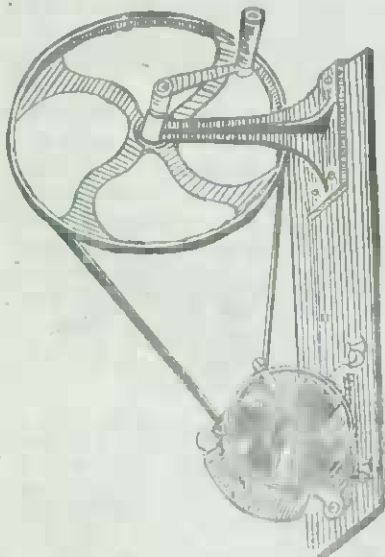


Fig. 11. Dynamo Machine.

Here is a small hand dynamo. As I revolve the wire armatures rapidly, and bring the two terminal wires near each other, a strong spark is seen. I shall attempt no fuller explanation of the principle upon which the machine is formed; such a consideration would require an entire evening for its treatment.

It has been my humble attempt in the present lecture to deal simply

with a few fundamental points connected with the practical applications of this great power. Has not electricity done much to overcome the disadvantages of separating space, and in fact to lessen and almost to abolish differences of time? It brings the distant parts of the world together, and men may talk from opposite points on the globe. A finger moves a key in New York, and the signal is heard and understood in Europe though an ocean rolls and roars between.

Electricity is indeed a most powerful manifestation of the great spirit of intelligence which is the spirit of the eternal God. What must His power and glory be who rules this mighty force in its grandest and most awful forms? He controls the lightning flash, and the destructive thunder-bolt is His servant. Let us be awake to the developments of all lines of intelligence, and acknowledge the eternal hand in them all. This is true wisdom; and such is the glory of God.

I beg to thank you for your attention, and my heartiest acknowledgments are gladly rendered to several parties who have so kindly offered their aid in preparing the apparatus necessary for the experiments of the evening. I must mention in this connection E. Holding, Esq., the United Electric Company, The Deseret Telegraph Company, The Deseret News Company, for the electrotyping instrument, and the Burton-Gardner Company, for the use of the sewing machine, and to C. R. Savage, Esq.

READING.

This is appropriately termed the age of Books. Never has literature of any kind been so cheap and plentiful as now. Only a comparatively short time ago most of the standard works were beyond the reach of all but the wealthy. Now they may be purchased by the poorest.

In such a condition of things, one would naturally expect to see a great advance made beyond the literature of our predecessors. But it is not so. On the contrary, the moral tone of the present literature is lower, and is continually lowering, while the course of the current seems irresistible. What is the cause of this retrogression? A difficult matter to explain and more difficult still to cope with and check. In the first place, the abundance of reading matter does not necessarily denote an increase of moral and intellectual

power. This is very evident. We may read a certain class of literature till the end of our lives, and be practically as ignorant then as when we began. It is not the amount but the quality that shows our real progress. We may have a large library at home and yet have our heads empty. There is a significance in the fact that men have produced greater results when books were few and scarce than we do with our abundance.

In the reign of Elizabeth the average library consisted of scarce a dozen works. Many rose to literary eminence with but a volume or two at their command; he who possessed the Bible and Shakespeare's works was considered well supplied with reading material. But here is the principle of their superiority over us. What they read they made their own. They read little and reflected much.

We pursue a different course, one much like that of the butterfly. We read just according to the whim of the moment, and when it changes we turn at random to anything else at hand. And so we pass through life in this way, "ipping into this, skimming over that, and glancing ever the next, but mastering nothing. Robertson says: "Multifarious reading weakens the mind like smoking." "He that reads a multitude of books has but little knowledge that is of any value."

A certain author was once ridiculed because of his limited library. "Ah," said he, "when I want a book I make it." Another writer says that he never felt afraid of a man with a large library.

Now for a few words upon novel-reading. All must concede this to be one of the greatest evils of the age. The habit of reading trashing literature is most injurious, for the memory is beclouded, the mind perverted, the morals corrupted, and above all, our time worse than wasted. Think of the many hours that are frittered away in romance-reading which could be devoted to the acquirement of practical knowledge. We are acquainted with some who evidently believe life is not worth living without novels to read. Indeed it is likely they would want to smuggle a few dime novels into heaven if they ever got there. Their idea of excellence in literature is rather peculiar. For instance the best book is probably that in which the hero has about seventeen more hair-breadth escapes than the hero of any other. Or perhaps the dark browed villain meets