



With the death of Francis J. Mc Carty, the inventor of the Mc Carty Wireless Telephone, the commercial world lost one of its greatest benefactors; the scientific world, one of its greatest original investigators of truth; the mechanical world, its greatest inventive genius.

As many theories concerning the cause of earthquakes have been advanced through the columns of the public press, since the great disaster of April 18th, and by men too, some of whom, at least, have devoted their lives to scientific research along these lines, it may be of interest to our readers to know that this youthful inventor, (being ^{now} ~~only~~ yet 18 years of age when he died) was applying his inventive genius to the construction of a seismograph, which would demonstrate the correctness of his theory of the cause of what we are pleased to term an earthquake. ~~It no~~ ~~will~~ will, no doubt, be of interest to those who are scientifically inclined to know that the theory of the cause of earthquakes as advocated by this youthful scientist, in the main, differs from the theories of those who have attained international distinction, along the line of this branch of investigation. The theories advanced were interesting to read, but the causes assigned by the respective authors were as varying, as the means of observation and scientific knowledge of the respective persons differed from each other. These theories were the result of an effort to diagnose the disease by a systematic study of the symptoms- and symptoms are sometimes misleading.

As this young scientist was an acknowledged leader of thought along electrical lines, he having discovered and put into operation, a telephone system, without the use of wires or poles, whereby the human voice with all its varying characteristics may be transmitted, upon the Hertzian wave principle now used in wireless telegraphy, for a distance of three thousand miles or more, after it had been demonstrated by scientists in this line to the satisfaction of themselves that the human voice

could not be so transmitted, who can successfully question but that this instrument, which the inventor had in the course of construction at the time of his death on May 11th, would have successfully demonstrated the correctness of his theory concerning the cause of earthquakes.

Though unable to give the many ramifications of the theory related to a friend, by this young scientist, immediately after the eventful quake of April 18th, a meager outline of the same will be given, as far as it was understood by this friend.

As explained by this wireless wonder of 17 years, an earthquake was nothing more than an electrical disturbance beneath the earth, similar to what, in the eastern states, we are pleased to call a thunder storm.

In order to explain the method of arriving at this conclusion, some explanation of his investigation in the invention of his Wireless Telephone, will be necessary.

In all systems of telephoning it is necessary to have a ground connection or ground wire. The reason for this is that under neath the earth there exists what is termed the negative electrical pole, as we will term it. From the surface of the earth and upward we have what we will call for convenience sake the affirmative or positive pole of electrical energy. When in telephoning we connect the positive and negative currents, inside and outside the earth respectively, we form what is called a circuit and can then transmit a message, either wire or wireless.

As long as the positive and negative electrical fluids remain at rest, or, as in electrical science ^{we say} as long as the loads of positive and negative electrical energy remain balanced equally we have no manifestation. When they become unbalanced we have an electrical disturbance, which varies as to location according to the place where either of these loads of electrical energy are attracted.

When we have a disturbance of the positive electrical energy which surrounds the earth on its surface, as for instance in a storm we see two clouds approaching charged with electrical forces unequally, we see the lightening shooting from one to the other causing what we call a thunder shower. After the lightening strikes we hear the roar of the thunder. We feel a shower of rain precipitated by the action of this electric energy discharged from one cloud to the other, or attracted from the earth. The sun is the great dynamo of the earth. When the earth is in a certain position with reference to the sun and the other planets, respectively, the sun by neutralization or attraction more strongly affects the negative pole than the positive pole, causing electrical energy to generate in the places on the earth more strongly attracted. The discharge of this electrical energy, in its effort to balance the load, or equalize itself, with the electrical load on the outside of the earth, causes beneath the earth what, above the earth, we would call a thunder storm. The lightening shooting through the earth, across water and gaseous matters causes steam and gas to instantly form and expand. This expansion and electrical thunderstorm we call an earthquake. Immediately after the earthquake, and in fact almost simultaneously with ~~ix~~ the shock, if you remember you heard a rumbling roaring sound, similar in many respects to the roar of the thunder immediately following a ~~ix~~ lightening flash in the positive current above the earth. The earth is now about 7000 miles out of its orbit it is contended by astronomers, which tends to show that the theory that the position of the earth with reference to the other planets and the sun has something to do with the attractive force of the negative electric body. The inventor, a few days after the quake called his friend's attention to the fact that each night after the quake electrical disturbances and flashes could be seen in almost any direction in the evening above the horizon, showing in a measure that the negative and positive currents in and upon the earth were attracted by each other. The reader may remember of

s eeing the~~s~~ e disturbances, and may remember how electrified the
atmoistphere was dur^eing the several days following the earthquake,
demonstrating at least to the casual observer, that whatever may
be said of the theory of this young scientist as to the cause of
earthquakes, there was at least great electrical disturbance. It
was noted in electrical fi~~elds~~ds, ~~and~~ especially in instruments
used for wireless telegraphy, that wires connected with the earth
during the earthquake, were moreheavily charged by a thousand
volts, than under normal conditions. In fact every evidence ob-
servable during the earthquake tended to show the correctness of
the theory entertained by this young inventor, and it is regretted
that his life was not spared longer, that the scientific world mi
might witness the results of his experiments along this line,
as well as along other lines upon which he was working and which
were unknown to the outside world.