

Jupiter, when farthest from us, in 52 minutes ; on Uranus, in two hours ; on Neptune, in four hours and a quarter ; on the star Vega, of the first magnitude, in 45 years ; on a star of the eighth magnitude, in 180 years ; on a star of the twelfth magnitude, in 4000 years ; and such stars are visible through the telescope. One of these remotest stars, therefore, may have been struck out of existence as long ago as man's creation, and yet be still visible in our telescopes. What prodigious demands does science make upon our faith, and upon our powers of conception too !

The rapid progress which has been made within a few years past in the sciences of galvanism and electro-magnetism has made it nearly certain that electricity, magnetism, galvanism, and electro-magnetism, are all but modifications of one great power in nature, and that is the electric fluid. In common electricity, we witness this fluid in a state of uncontrollable intensity. In galvanism, we see it flowing in an uninterrupted current. In electro-magnetism, we see that magnetism is produced whenever a constant current of electricity can be made to pass through a body ; and if those currents can be made to flow permanently, then permanent magnets will be produced. On the other hand, currents of electricity, which may be made visible, may be induced in coils of copper wire, by making and breaking the connection of a bar of soft iron with a permanent magnet ; that is, electricity may be produced by magnetism, and it seems almost certain, therefore, that magnetism is only a modification of electricity.

These discoveries have thrown a flood of light upon many of the most curious and recondite operations of nature. The astonishing effects of the galvanic fluid upon animals recently killed, although it does not demonstrate that the mysterious principle of life is identical with electricity, yet proves a very intimate relation between the two things. By the application