

# SCIENTIFIC CANADIAN

## MECHANICS' MAGAZINE

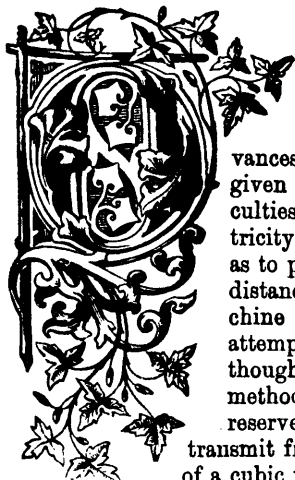
AND  
PATENT OFFICE RECORD

Vol. 9.

JULY, 1881.

No. 7.

### NOTE AND COMMENT.



On another page we record what seems likely to prove one of the greatest advances in electrical science yet given to the world. The difficulties in the way of storing electricity in any permanent form so as to permit of its being used at a distance from the generating machine have hitherto baffled all attempts in that direction, and though Plante pointed out the method to be adopted, it has been reserved for M. Camille Faure, to

transmit from Paris to Glasgow a box of a cubic foot in capacity, containing

nearly one million feet of compressed electrical energy. The experiments since made by Sir William Thompson have resulted in most unmistakable evidences of the enormous power contained in the little box, and the scientific world are agape at the future which this discovery opens out. In truth, the possibilities which suggest themselves are so vast, that speculation loses itself in the endeavor to trace them. If we may be allowed to indulge our prophetic instinct so far, there is one branch of science which has been for years almost at a standstill waiting for some such discovery to give it a fresh impetus. Aeronauts have been hitherto baffled in their attempts to control their unstable machines in the upper air, and much as has been done in every other direction, no practical method of aerial locomotion has been suggested which is not entirely, or in the main, dependant upon uncertain winds and irresponsible air currents. The difficulty in the way of providing balloons with any of the known methods of propulsion has lain in the inability of the lifting power to carry sufficient weight in proportion to its resisting surface. The largest steam engine, for example, that can be raised into the air by a balloon of any given size is not of sufficient power to overcome the resistance of the air and drive the machine against the wind. This difficulty the new discovery

seems likely to do away with. When we can pack a million feet of energy in our portmanteau before starting on a journey, we can afford to laugh at currents, and despise the winds. Nevertheless it will probably be some little time before such results are realized, and we must wait at least for the particulars of M. Faure's discovery to be made public.

THE *Scientific American* devotes considerable space in its items of June 18th to the discussion of "Luckhardt's Process of Photo-engraving" so called, as described by the discoverer (?) in the *Photographische Correspondenz*. The discovery claimed consists simply in the production of a line negative for photo-engraving purposes by working with a point upon an ordinary negative coated with varnish. That this should be regarded as new and a discovery of his own by Mr. Fritz Luckhardt is sufficiently remarkable, but that the *Scientific American* should endorse the opinion is indeed surprising. For the benefit of those who have this view, it may be well to state that the process as described there has been in use here for some 14 years, in connection with the CANADIAN ILLUSTRATED NEWS and other publications of the Burland Lithographic Company and its predecessors, and we believe is by no means confined even to them. Our process is more perfect in every respect than that described in the correspondence in question. The varnish used will keep a considerable time without drying, moreover prints can be made upon chrome or citrate of iron paper, thus avoiding the expense of the silver paper used by Mr. Lockhardt, and finally it is applicable to all processes of photo-engraving, photo-lithography or photo-zincography. This is however by the way; the only point worthy of notice is that the system is at least 15 years old, and not in any sense a new discovery. It may be interesting in this connection to note that some years before the introduction of the process into Canada, a Mr. Cotton, who held some office under the Canadian Government tried the experiment of engraving upon the silvered back of a mirror, afterwards using the plate so engraved as a negative for printing from, and to this idea may possibly be traced the origin of the present system, which whatever its merits, has no claim at least to novelty.