

Fire Insurance in London.

At the annual meeting of the shareholders of the Royal Insurance Company, Liverpool, it was stated that a meeting of all the officers engaged in fire insurance in London had recently been held, consequent on the late great fire, at which it was agreed to advance the rate of premium on commercial insurance to a considerable extent. Subsequent reflection, however, had shown that a modification of the proposed rise would be sufficient; and Mr. Dove, the manager of the Royal Company, was of opinion that these modified rates would be found sufficient to meet all contingencies. He proceeded to say, that within the last seventeen years 580 new insurance offices, of all kinds, had been projected. Of these, 233 had ceased to exist in the same period, 11 had amalgamated with other companies, 134 had transferred their business, and 42 were winding up their affairs in chancery. Of the whole number, 95 fire offices had discontinued business. Within the last seventeen years 48 fire offices had been established. Of these, only 12 survive, 36 having discontinued business; and, in all, there are only 52 fire offices now doing business.

Cattle in Buenos Ayres.

In the three *Partidos* of the province of Buenos Ayres alone, there were, according to the returns of 1858, 3,875,742 horses, 8,672,675 oxen and 1,385,280 sheep. In the year 1838 the number of horned cattle did not exceed four millions; but since the pampas south of the Salado has been cleared of Indians, and the country in general become more settled, the above enormous increase has taken place. The same with the sheep, the wool of which was formerly so coarse that it was only fit for carpets: whereas, since the improvement of the breed by a cross with fine-woolled sheep, it is largely exported for finer manufactures. The exportation for 1858 consisted of 969,604 dry and 318,304 salted ox-hides, 68,874 dry and 120,757 salted horse-hides, wool to the amount of 37,423 fardos, tallow, 240,362 cwt., besides quorns, oil, bones and hair. The number of ships in which these were exported was 404.

Steamships for the Montreal Ocean Steamship Company.

Messrs. R. Steele & Son, of Greenock, have turned out a screw of 1,400 tons, named the *St. George*, 253 feet long, 33 feet 6 inches broad, and 22 feet deep. The *St. George*, which will be fitted with engines of 175 horse-power, has been built by Messrs. J. & A. Allan, of the Montreal Ocean Steamship Company, and is intended to ply between Glasgow and Montreal. A similar screw, built for the same owners by Messrs. Barclay, Curle & Co., of Whiteinch, is as nearly as possible of the same tonnage and dimensions, and has received the name of the *St. Andrew*; she is to be fitted with engines by the same firm, of 150 horse-power, and will also run between Glasgow and Montreal.

The extent of the Oil Region in America.

The oil region comprises parts of Lower and Upper Canada, Ohio, Pennsylvania, Kentucky, Virginia, Tennessee, Arkansas, Texas, New Mexico, and California. It reached from the 65th

to the 128th degree of long. W. of Greenwich, and there are outlying tracts besides.

Rocks of Silurian, Devonian and Carboniferous age yield this material, which is rapidly becoming one of the most important natural productions of the continent, and is likely to exercise a very extensive influence upon the comforts and civilization of mankind.

Phosphorescence.

The experiments of M. De Reichenbach tend to prove that phosphorescence is a usual consequence of all molecular phenomena, and not the result of combustion or oxidation. Mr. Phipson proved this last point some time ago, when he showed that dead fishes shine in the dark, even under water, and in the absence of oxygen.

According to M. De Reichenbach there is phosphorescence during fermentation or putrefaction, crystallisation, evaporation, condensation of vapours, the production of sound (vibrations therefore), and the fusion of ice; a considerable glow is remarked when a galvanic pile in activity, a block of ice in fusion, or a solution of sulphate of soda in the act of crystallising is observed in the dark.

The human body itself is not devoid of phosphorescence: in a healthy state it emits a yellow glow; when in ill-health the glow becomes red. The author considers that this observation may possibly be of use in diagnosis.

To perceive these phenomena the eye ought to have been previously rendered sensitive by remaining some hours in perfect darkness, and even then all eyes are not equally impressionable. But, if several persons unite in performing the experiment together, there will always be a certain number who are able to see the phenomena.

These facts of the production of light remind the author of observations published some time ago, by M. Wullner, according to which every molecular movement is accompanied by a disengagement of electricity.—*Poggendorff's Annalen*, vol. cxii., p. 459.

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