tate to recommend its general adoption. We have before observed, that specimens of it may be seen at our office, or will with pleasure be transmitted to parties interested. Mining Journal.

On a New Rain Gauge.—By the Rev. THOMAS KNOX.

On the 26th of June last, a new rain gauge was exhibited to the Royal Irish Academy, contrived by the Rev. Thomas Knox.

The object of this instrument is to register the amount of rain that falls when the wind is in different points. Its construction is very simple. The water—instead of descending from the reservoir directly into the tube of registry—passes through a lateral tube into an annular-shaped vessel, divided into eight compartments, each of which terminates below in a graduated glass tube. It is obvious, then, that if the eight tubes be set to correspond with the cardinal and intermediate points, and that the reservoir be made to revolve on a vertical axis by means of a vane, the direction of which corresponds with that of the lateral tube, the object proposed will be attained. Mr. Knox has preferred to make the reservoir fixed, and the system of tubes movable; but the result is obviously the same. Lon. & Ed. Philos. Mag.

On an Easy Method of preparing Platina Black.—By M. DÖBOREINER. *Translated for this Journal, by* JOHN GRISCOM.

Melt platina ore (crude platina) with double its weight of zinc, and treat the alloy thus obtained and reduced to powder,—first, by dilute sulphuric acid, and then by dilute nitric acid, in order to oxidate all the zinc. This, contrary to theory, is but slowly effected, even at a high temperature. A dark grey insoluble powder of native platina remains, mingled with osmiuret of iridium. This powder acts like platina black, after it has been properly purified by lixivium of potash, and it has such an oxidizing action that it transforms not only formic acid into carbonic, and alcohol into acetic acid, but even the osmium which it contains absorbs oxygen from the air, and is disengaged by degrees in the state of osmic acid.

This method of preparing platina in an extremely divided state, was recommended by Descotils thirty years ago, and he was the first to observe that the powder thus obtained detonates by heat like gunpowder, and that muriatic acid destroys this property.

When platina powder prepared by zinc is moistened with alcohol, it becomes incandescent and osmic acid is disengaged; but if it be mixed with alcohol so as to form a paste, and spread out on a watch glass, it disengages only acetic acid. This is the most simple process of purifying the air of a chamber. Jour. des Mines.

A process of purification rather too troublesome and expensive when ventilation and lime can be easily resorted to. It may, perhaps, be eligible in a sick room. TR.