these means may be seen advantageously employed where peculiar facilities are presented, as in manufactories.

The moving power of air itself is constantly taken ad­vantage of, both for forcing and exhausting air. The wind-sail and the cowl are familiar illustrations where this power is resorted to ; but the continuity of its action cannot be depended on, and it is perpetually varying in intensity. A large shaft or chimney, with a good fire, is more gene­rally employed at present than mechanical means, though both may occasionally be introduced in the same place with advantage. In ships, Captain Warrington has proposed the introduction of a fanner; and a number of experi­ments was made on board the Benbow a few years ago by Dr Reid, who proposed the use of the same instru­ment, but who did not consider that it would attain all the purposes desired, unless conjoined with a system of dif­fusion and equalization, which has been partially introduced in the steam boats Albert, Wilberforce, and Soudan, con­structed for the African expedition. There, arrangements have also been proposed for purifying the air, as the expedition traverses the most unwholesome districts.

VI. Ingress and Egress of Air.—Doors and windows, the only sources for the ingress of air in ordinary apart­ments, should be avoided as a means of introducing air in all new buildings, and independent apertures and flues provided, entirely under the control of valves, by whose action the amount of ingress can be regulated with preci­sion. Further, in every apartment foul air should be led from the greatest altitude by similar independent flues. The ordinary construction often interferes seriously with ventilation, foul air descending sometimes in one and escaping in another. Analteration in the structure of houses, introducing one principal chimney, in which the flues from all the apartments ultimately join, would be a great improve­ment in this respect ; and even for whole streets and dis­tricts one large shaft would be sufficient. To any who studies attentively the movement of currents of air, nu­merous other changes will present themselves as being equally desirable in the habitations of the rich and of the poor. In public buildings, the foul air, from hundreds of apartments, will be removed by a single shaft.

The reader who is anxious to extend his knowledge of this subject, will find much information in the Parliamen­tary Reports, particularly on the Ventilating and Acoustic arrangements of the present House of Commons, on the Ventilation of Mines, in many of the Reports on Education and on Manufactures, in which the health of the children has more particularly engaged attention ; in the Reports on Improving the Health of Large Towns, and in some Statistical Reports on the Health of the Army and Navy. Tredgold on Warming and Ventilating, is a work of great value, and the different memoirs and treatises of D'Arcet, present numerous important details. In Dr Arnott’s work on Warming and Ventilating, a full description of his stove is given ; and in Hood’s, and also Richardson’s treatise on the same subjects, the different varieties of hot water appa­ratus are explained. In Dr Reid’s Chemistry of the Atmosphere, and Illustrations of Warming and Ventilating, the result of numerous experiments is given on the ventila­tion of public buildings and private dwelling-houses, and the ventilation of ships, manufactories, &c.

The laws of the communication of heat, the electrical condition of the atmosphere, the diffusion of gases, the fluctuations of the barometer, the indications of the hygro­meter ; the *plenum movement,* when the pressure of the air within, from mechanical means, exceeds that without the apartment ventilated ; the *vacuum movement,* when the re­verse is induced ; the *downward and lateral* current, espe­cially the former, which is so important in protecting works of art exposed in public assemblies ; the precautions neces­sary where it may be introduced, the influence of different

varieties of clothing, of medicated atmospheres, of moist and dry air baths at different temperatures, and of fumiga­tion, are all objects of inquiry that bear practically on ven­tilation. The peculiar arrangements in various mines, hospitals, and manufactories, especially where offensive vapours are condensed or destroyed, likewise afford many valuable illustrations of its practice. (d. g.)

VENTILATOR, a machine by which the noxious air of any close place may be discharged, and replaced by fresh.

VENTIVALUM, a town in the Southern Carnatic, forty miles west-north-west from Pondicherry. Long. 79. 25. E. Lat. 12. 10. N.

VENTRICLE properly denotes any little cavity; but is more particularly used by physicians and anatomists for the stomach and certain cavities of the heart and brain.

VENTRILOQUISM, an art by which some individuals can so modify their voice, as to make it appear to proceed from any distance, and in any direction.

VENUS, in Pagan worship, the goddess of love and beau­ty. Cicero mentions other two deities of this name, Ve­nus, styled *Urania* and *Coelestis,* and the *Venus Pandemos* or *Popularis,* the wife of Vulcan, and the goddess of wan­ton and effeminate love. To the first the Pagans ascribed no attributes but such as were agreeable to the strictest chastity and virtue; and of this deity they admitted no cor­poreal resemblance, she being only represented by the form of a globe, ending conically. Her sacrifices were termed *nephalia,* on account of their sobriety. To her honey and wine were offered, and no animal except the heifer; and on her altars the wood of figs, vines, or mulberries, was not suffered to be burnt. The Romans dedicated a temple to this goddess, to whom they gave the name of *Verticordia ;* because she turned the hearts of lewd women, and inspired them with modesty and virtue.

But the most famous of these goddesses is the wife of Vulcan; who is represented as springing from the froth of the sea. As soon as she was formed, she was laid in a beau­tiful shell embellished with pearl, and wafted by gentle ze­phyrs to the isle of Cythera, whence she sailed to Cyprus. At her landing, flowers rose beneath her feet; she was re­ceived by the Hours, who braided her hair with golden fillets ; and then wafted her to heaven, where her charms appeared so attractive, that most of the gods desired her in marriage; but Vulcan, by the advice of Jupiter, gained possession by putting poppies into her nectar. As Venus was the god­dess of love and pleasure, the poets have been lavish in the description of her beauties; and the painters and statuaries have endeavoured to give her the most lovely form. Some­times she is represented clothed in purple, glittering with gems, her head crowned with roses, and drawn in an ivory car by swans, doves, or sparrows; at others she stands at­tended by the Graces; but in all positions, her son Cupid is her inseparable companion. She was honoured as the mo­ther of Hymenaeus, Cupid, Æneas, and the Graces, and was passionately fond of Adonis and Anchises. This goddess was principally worshipped at Paphos in Cyprus; and the sacrifices offered to her were white goats and swine, with libations of wine, milk, and honey. Her victims were crown­ed with flowers, or wreaths of myrtle.

VERA CRUZ, one of the nineteen states which compose the republic of Mexico : also the capital city of that state. See Mexico.

VERAMALLY, a town in the Southern Carnatic, twen­ty-three miles south-west from Trinchinopoly. Long. 78. 35. E. Lat. 10. 26. N.

VERCELLI, a province of the kingdom of Sardinia, in the principality of Piedmont. A part of it is moun­tainous, but the other portions are fertile, especially in the valleys, where much rice is produced. It contains three cities, and seventy-three towns and villages, with 99,600 inhabitants. The capital is a city of the same name. It is