

is carried on by a continuous and regular process from day to day. Two adjacent compartments (*á á*) have this day their entrance doors open, all the rest being perfectly closed. By the arrangement of the valves in the flues, and the larger damper or porteullis (*d*), the air which gets admittance along by the two open doors (*á*) has to go round the whole circuit of the ring-kiln in order to be drawn into the chimney. From one of the two open compartments men are taking out the finished and cooled bricks, and in the other one they are building up newly formed unburnt Bricks which are not yet quite dry. The air entering by these two compartments passes first among bricks almost cold, and takes up their heat, and then goes forward to warmer Bricks, and then to hotter and hotter, carrying the heat of the cooling Bricks forward with it till it reaches the part of the ring diametrically opposite to the two open and cold compartments. At this place (*e e*) it gets a final accession of heat from the burning of a very small quantity of coal-dust, or other suitable fuel which is dropped in among the bricks from time to time by numerous small openings furnished with air-tight moveable lids. Thus, at this part of the kiln there is generated the full intensity of heat, which is required for the burning of the bricks. The hot air, including the products of the combustion, which, for brevity, we may call the smoke, though it is really perfectly gaseous and free from sooty particles, then passes forward to the bricks, which, by its continuous current, are being heated; and it passes on among them from hot bricks to those who are less and less hot, heating them as it goes, and then passes on to those which are still damp, drying them as it goes; and then it passes to the chimney, in a state almost cold, and saturated with the moisture, in the form of steam or vapour, which it has taken from the damp bricks. On the following day to that on which the operations just described have been going on, the porteullis is shifted forwards by the space of one compartment, and a corresponding change is made as to the flue which is to communicate with the chimney, and as to the pair of compartments open for the admission of air and for the removal of finished cold bricks, and the building in of fresh damp bricks; and the air, including products of combustion, at the ends of its circuit in the annular chamber just before passing