## REFUSE DESTRUCTORS AND THEIR RESULTS.

THE question of the destruction of the refuse of cities, although not yet solved, evidently approaches solution. Whatever may be done with the sewage, cremation is to be plainly the destiny of all garbage which cannot pass into the sewers. The complete combustion and destruction of the rerefuse is of the utmost importance, and the furnaces or destructors now commonly in use are not yet so perfect as they should be in regard to the completion of this process. In a paper in the Sanitary Record, Mr. C. Jones, Assoc. Inst., E, C., of Ealing, Eng., refers to this point in connection with destructors in the following lines. The con. tinuous and rapid destruction of the town refuse, as fast as it was collected, with avoidance of all decomposing and offensive accumulations, could not but be of the greatest sanitary advantage to the town. It must be admitted, however, that the burning process as at present conducted was not wholly unattended with a dischargs from the chimney shaft of a little unconsumed vapour which might be recognised at a distance as offensive. It was he considered, the escape of what were called empyreumatic vapours, which in the furnaces as then constructed passed at once into the flues, together with a mass of offensive products afforded by by the active burning, that occasioned complaint of bad smells from the chimney. How to deal satisfactorily with these empyreumatic vapours, as also in the way of precaution with the vapours given off in the mere drying of the refuse, was not an easy matter. One way would be to take means for their efficient condensation ; but except as a last resource, or in aid of other means, he did not recommend a resort to that method. Another mode would

be to take means for preventing the formation, or for insuring the rapid destruction, of these vapours within the furnace itself. Without altering the general disposition of the furnaces then in use-Fryer's and Healey'she suggested the furnaces should be arranged in single blocks, so as to be easily accessible. The drying up the refuse in the furnaces before actually took fire should be better provided for, and the moist vapour given off in the drying, instead of being allowed to escape at once into the main flue, should be caused to pass over and through the mass of actively burning refuse. The opening into the flues leading from the furnace to the main flue should be so situated and arranged that the smoke and vapour given off by the incipient burning, together with a sufficient supply of air, should be caused on its way into the flues to pass over the most actively burning, portionthe refuse, and thereby get almost, if not quite, completely consumed. The flues into which the productsalike of the drying, the incipient burning, and the active burning-first passed from the furnace on their way. to the main flue should be of some length but of no greater size than necessary, and be constructed with a view to their being maintained at as high a degree of heat as practicable. No amount of mere heating, however, would of itself cause their destruction. The flues must be sufficiently strongly heated, in admixture with a sufficiency of air, to effect their burning or destruction. . . Dr. A. Newsholme, medical officer for Clapham, reported so late as April last, that the possibility of the escape of dust or soot or noxious. gases seemed to be entirely ensured: against at Ealing. The smoke escap-