white, to a browniſh, yellowiſh, greeniſh, &c. white. 2 The red and reddiſh ſands, both pure and impure. *3.* The yellow ſands, whether pure or mixed, are alſo very numerous. 4. The brown ſands, diſtinguiſhed in the ſame manner. 5. The black ſands, whereof there are only two ſpecies, viz. a fine ſhining greyiſh-black fand, and another of a fine ſhining reddiſh-black colour. 6. The green kind; of which there is only one known ſpecies, viz. a coarſe variegated duſky green fand, com­mon in Virginia.

Sand is of great uſe in the glaſs-manufacture; a white kind of fand being employed for making of the white glaſs, and a coarſe greeniſh-looking fand for the green glaſs.

In agriculture, it ſeems to be the office of ſand to make unctuous earths fertile, and fit to ſupport vege­tables, &c. For earth alone, we find, is liable to co- aleſce, and gather into a hard coherent maſs, as appears in clay; and being thus embodied, and as it were glued together, is no way diſpoſed to nouriſh vegetables. But if ſuch earth be mixed with fand, its pores are thereby kept open, and the earth itſelf looſe, ſo as thus to give room for the juices to aſcend, and for plants to be nouriſhed thereby. A vegetable planted only in fand, or in a fat glebe, or in earth, receives little growth or increaſe; but a mixture of both ren­ders the maſs fertile. In effect, earth is in ſome meaſure made organical by means of fand; pores and ſpaces, ſomething analogous to veſſels, being thereby maintain­ed, by which the juices may be conveyed, prepared, digeſted, circulated, and at length diſcharged. Com­mon fand is, therefore, a very good addition, by way of manure, to all forts of clay-lands; it warms them, and makes them more open and looſe.

*SAND-Bags,* in the art of war. See *SAcκs oſ Earth.*

*SAND-Eel,* in ichthyology See Ammodytes.

*SAND-Flοods,* a name given to the flowing of ſand ſo common in the deſerts of Arabia. Mr Bruce gives the following accurate deſcription of ſome that he ſaw in travelling thro’ that long and dreary deſert. “At one o’clock (ſays he) we alighted among ſome acacia-trees at Waadi el Halboub, having gone twenty-one miles. We were here at once ſurpriſed and terrified by a ſight furely one of the moſt magnificent in the world. In that vaſt expanſe of deſert from weft and to north-weſt of us, we ſaw a number of prodigious pillars of fand at different diſtances, at times moving with great celerity, at others ſtalking on with a majeſtic ſlowneſs: at in­tervals we thought they were coming in a few minutes to overwhelm us; and ſmall quantities of ſand did ac­tually more than once reach us. Again they would retreat ſo as to be almoſt out of ſight, their tops reach­ing to the very clouds. There the tops often ſeparated from the bodies; and theſe, once disjoined, diſperſed in the air, and did not appear more. Sometimes they were broken near the middle, as if ſtruck with a large cannon ſhot. About noon they began to advance with conſiderable ſwiftneſs upon us, the wind being very ſtrong at north. Eleven of them ranged alongſide of us about the diſtance of three miles. The greateſt dia­meter of the largeſt appeared to me at that diſtance as if it would meaſure ten feet. They retired from us with a wind at ſouth-eaſt, leaving an impreſſion upon my mind to which I can give no name, though ſurely one ingredient in it was fear, with a conſiderable deal

of wonder and aſtoniſhment. It was in vain to think of flying, the ſwifteſt horſe or faſteſt ſailing ſhip could be of no uſe to carry us out of this danger; and the full perſuaſion of this rivetted me as if to the ſpot where I flood, and let the camels gain on me ſo much in my ſtate of lameneſs, that it was with ſome difficulty I could overtake them.

“The ſame appearance of moving pillars of ſand preſented themſelves to us this day in form and diſpoſition like thoſe we had ſeen at Waadi Halboub, only they ſeemed to be more in number and leſs in ſize. They came ſeveral times in a direction cloſe upon us, that is, I believe, within leſs than two miles. They began im­mediately after ſun-riſe, like a thick wood, and almoſt darkened the ſun: his rays ſhining through them for near an hour, gave them an appearance of pillars of fire, Our people now became deſperate: the Greek ſhrieked out, and ſaid it was the day of judgment. Iſmael pronounced it to be hell, and the Tucorories, that the world was on fire. I aſked Idris if ever he had before ſeen ſuch a ſight? He ſaid he had often ſeen them as terrible, though never worſe; but what he feared moſt was that extreme redneſs in the air, which was a ſure preſage of the coming of the ſimoom.” See Simoom.

The flowing of ſand, though far from being ſo tre­mendous and hurtful as in Arabia, is of very bad conſequences in this country, as many valuable pieces of land have thus been entirely loſt; of which we give the fol­lowing inſtances from Mr Pennant, together with a pro­bable means of preventing them in future. “I have more; than once (ſays he), on the eaſtern coaſts of Scotland, obſerved the calamitous ſtate of ſeveral extenſive tracts, formerly in a moſt flouriſhing condition, at preſent covered with ſands, unſtable as thoſe of the deſerts of Arabia. The pariſh of Furvie, in the county of Aberdeen, is now reduced to two farms, and above L. 500 a-year loſt to the Errol family, as appears by the oath of the factor in 1600, made before the court of ſeſſion, to aſcertain the miniſter’s ſalary. Not a veſtige is to be ſeen of any buildings, unleſs a fragment of the church.

"The eſtate of Coubin, near Forres, is another melancholy inſtance. This tract was once worth L. 300 a-year, at this time overwhelmed with ſand. This ſtrange inundation was ſtill in motion in 1769, chiefly when a ſtrong wind prevailed. Its motion is ſo rapid, that I have been aſſured, that an apple-tree has been ſo covered with it in one ſeaſon, that only the very ſummit appeared. This diſtreſs was brought on about ninety years ago, and was occaſioned by the cutting down ſome trees, and pulling up the bent or ſtar which grew on the ſand-hills; which at laſt gave riſe to the act of 15 George II. c. 33. to prohibit the deſtruction of this uſeful plant.

“I beg leave to ſuggeſt to the public a poſſible means of putting a ſtop to theſe deſtructive ravages. Providence hath kindly formed this plant to grow only in pure fand. Mankind was left to make, in after-times, an application of it ſuitable to their wants. The ſand- hills, on a portion of the Flintſhire ſhores, in the pariſh of Llanaſa, are covered with it naturally, and kept firm in their place. The Dutch perhaps owe the exiſtence of part at leaſt of their country to the ſowing of it on the *mobile ſolum,* their ſand-banks.

"My humane and amiable friend, the late Benjamin