diſtant countries, and renders it eaſy to tranſport the commodities of one nation to another, but its waters riſing in the air deſcend in ſhowers to fertiliſe the earth and nouriſh the vegetable kingdom, and collecting into rivers flow onwards, bringing fertility and wealth and commerce along with them, and again return to the ſea to repeat the fame round.

The knowledge of this proceſs of nature might, one would think, have convinced philoſophers that the pro­portion between ſea and land continued always nearly the ſame. Philoſophers however have formed different theories about this as well as moſt other ſubjects, main­taining on the one hand that the ſea is continually encroaching on the land, and on the other that the land is conſtantly gaining on the ſea. Both ſides have ſupported their theories by arguments, demonſtrations, and uncontrovertible facts!

The height of the mountains, ſay the philoſophers who ſupport the encroachments of the ſea, is continual­ly diminiſhing; expoſed to the violence of every ſtorm, the hardeſt rocks muſt at laſt give way and tumble down. The rivers are continually ſweeping along with them particles of earth which they depoſite in the bot­tom of the ſea. Both the depth of the ocean then and the height of the dry land muſt be always decreaſing; the waters therefore muſt, unleſs a part of them were annihilated, ſpread over a greater extent of ſurface in proportion as theſe cauſes operate. This reaſoning, convincing as it is, might be confirmed by a great number of facts: it will be sufficient however to men­tion one or two. In the reign of Auguſtus the iſle of Wight made a part of Britain, ſo that the Engliſh croſſed over to it at low water with cart loads of tin; yet that iſland is at preſent ſeparated from Britain by a channel half a mile wide. The Godwin ſands on the eaſtern ſhore of England were formerly the fertile eſtate of earl Godwin. Nor are the encroachments of the ſea confined to Britain. In the bay of Baiæ near Na­ples there are remains of houſes and ſtreets ſtill viſible below the preſent level of the ſea. The ſea therefore is making continued encroachments upon the land; and the time will come, ſay they, when the waters will again cover the ſurface of the earth.

Such are the arguments of thoſe philoſophers who maintain the continual encroachments of the ſea. Thoſe who maintain the oppoſite theory, that the land **is** gra­dually gaining on the ſea, though they pretend not to deny the facts advanced by their opponents, affirm that they are altogether inſufficient to eſtabliſh the hypotheſis which they were brought forward to ſupport. Though the rivers carry down particles of earth into the ſea, theſe, ſay they, are either accumulated on other ſhores, or, collecting in the bottom of the ocean, harden into ſtone, which being poſſeſſed of a vegetative power riſes by degrees above the ſurface of the ſea and form rocks, and mountains, and iſlands. The vegetative na­ture of ſtone indeed is ſufficient, of itſelf, to convince us that the quantity of earth muſt be daily accumula­ting, arid conſequently that the ſurface of the ſea is di­miniſhing in extent. Celſius, a Swediſh philoſopher (for this diſpute has been carried on in Sweden with the greateſt keenneſs), has endeavoured to build this

theory with more ſolid materials than vegetable ſtone. In a curious memoir, pubiſſhed in 1743, he aſſerts that the Baltic and the Atlantic, at leaſt that part of it which waſhes Norway, is conſtantly diminiſhing; and he proves this by the teſtimony of a great many aged pilots and fiſhermen, who affirmed that the ſea was become much ſhallower in many places than it had been during their youth: that many rocks formerly covered with water were now ſeveral feet above the ſurface of the ſea: that loaded veſſels uſed formerly to ride in many places where pinnaces and barks could now with difficulty ſwim. He produces inſtances of ancient ſea-port towns now ſeveral leagues from the ſhore, and of anchors and wrecks of veſſels found far within the country. He mentions a particular rock which 168 years before was at the bottom of the ſea, but was then raiſed eight feet above its ſurface. In another place where the water 50 years before had reached to the knee there was then none. Several rocks, too, which during the infancy of ſome old pilots had been two feet under water, were then three feet above it. From all theſe obſervations M. Celſius concludes, that the water of the Baltic decreaſes in height 41/2 lines in a year, 4 inches 5 lines in 18 years, 4 feet 5 inches in a hundred years, and in a thouſand years 45 feet. Conſcious, however, that theſe facts, how concluſive ſoever as far as relates to the Bal­tic, can never determine the general queſtion, M. Celſius advances another argument in ſupport of his theory. All that quantity of moiſture, ſays he, which is imbibed by plants is loſt to the general maſs of water, being converted into earth by the putrefaction of vegetables. This notion had been mentioned by Newton, and was adopted by Van Helmont: if granted, it follows as a conſequence that the earth is continually increaſing and the water diminiſhing in a very rapid degree.

Such are the arguments advanced in ſupport of both theories; for it is needleſs to mention a notion of Lin­naeus that the whole earth was formerly covered with water except a ſingle mountain. When fairly weighed, they amount to nothing more than this, that the ſea has encroached upon the land in ſome places, and reti­red in others; a concluſion which we are very willing to allow. What was advanced by thoſe philoſophers, who maintain that the ſea is continually encroaching on the land, about the depth of the ſea conſtantly di­miniſhing, muſt remain a mere aſſertion till they prove by experiments, either that this is really the caſe, or that nature has no way of reſtoring thoſe particles of earth which are waſhed down by the rivers. Nor have they any good reaſon to affirm that the height of the mountains is decreaſing. Can a ſingle uncontrovertible inſtance be produced of this? Are the Alps or the Apen­nines, or Taurus, or Caucaſus, leſs lofty now than they were a thouſand years ago? We mean not to deny that the rain actually waſhes down particles of earth from the mountains, nor to affirm that the hardeſt rocks are able to refill continual ſtorms, nor that many mountains have ſuffered, and continue to ſuffer daily, from a thou­ſand accidents. But the effects produced by all theſe cauſes are ſo trifling as to be altogether impercepti­ble @@**(a).** Nature has aſſiduouſly guarded againſt ſuch ac­cidents; ſhe has formed the mountains of the moſt dura-

@@@(A). M. Gensanne pretends that the Pyrenean mountains become an inch lower every ten years. But even ac-