

DESIGN FOR A SUBURBAN RESIDENCE.

The *Manufacturer and Builder* seldom gives its readers a design for a more attractive and comfortable house than that illustrated this month. The compact arrangement of all parts, and the simple yet effective treatment of the exterior, make possible a great deal of room at comparatively low cost.

Everything in the interior arrangement is suggestive of great comfort, and the attention given to certain details makes the house one of high class. Thus, the hospitable entrance hall, with its open fireplace and broad staircase, the places for a cheerful open fire in all the downstairs rooms, the complete separation of kitchen from dining-room by means of a butler's pantry, the position of the back stairs and the situation of the bath-room, where least possible plumbing work is necessary, are all indicative of careful thought given to the plans. Then, too, there are pantries and closets in abundance downstairs and upstairs. Each bedroom has its own closet, and in addition a good closet is placed at the end of the house for storage of linen, etc.

The rooms are all large and well lighted, and in addition to the smaller windows in the entrance hall, a large double window on the landing between the first and second stories throws light down into the entrance hall and serves to well light the upper hall.—*Ec.*

PRESENT AND FUTURE OF THE ISLAND OF MADEIRA.

There are few colonial possessions so justly celebrated as the little island of Madeira, which lies in the Atlantic Ocean, 270 miles north of the Canary Islands, and at about an equal distance from the coast of Morocco. Madeira was discovered by the Portuguese navigators Joan Gonzalez, Zarco and Tristan Vaz, in 1420, a year after its small sister island, Porto Santo, had been taken possession of by them. Madeira was at the time so densely wooded that the Portuguese set fire to the timber, and this destruction continued until, after a couple of years, not a vestige of forest was left. The ashes of this vegetation may, together with the volcanic nature of its fertile soil, have contributed much to prepare Madeira for viticulture and that particular flavor of the grape which distinguishes it and the wine made therefrom. A mountain range forms the backbone of the island at an average height of 4,200 feet, reaching 6,000 feet at some points. Being well watered, a system of irrigation, which was soon introduced after it became a permanent Portuguese colony, has led to the splendid results which agriculture has reaped from this favored spot.

The climate is very mild—Madeira being situated on the border of the tropic—neither too moist nor too dry, and so even that the island has become the favorite resort of invalids suffering from pulmonary ailments. The marvellous cures effected there have rendered this spot in mid-ocean justly famous. Hence the European steamers bound to the West Indies and Brazil mostly call there to leave and take passengers and at the same time load the celebrated wine.

Madeira has a population of 130,213 souls and Porto Santo of 1,738; when discovered, both were uninhabited. Funchal, the capital and chief port, has 21,000 inhabitants.

The sugar-cane, which was noticed for the first time by the Moors in the East in 1239, was introduced by the Moors into Spain and cultivated by them at Granada and Valencia in 1312, whence, in 1425, the Portuguese carried it to Madeira, where, in 1455, it was a flourishing crop, producing 120,000 arrobes of 25 pounds annually. Gradually the vine superseded it, until in 1852, the oidium destroying the latter, it was again cultivated, and has continued a regular agricultural pursuit and industry ever since.

The vine was introduced from Sicily, and proved such a success that in 1547 the Malmsay of Madeira had become the favorite wine at the Court of Spain. In 1646 there were exported 1,400 pipes, and in 1660 several Englishmen settled on the island for the purpose of viticulture. From that time dates the celebrity which this wine acquired in England and on the Northern Continent. In 1774 there were exported 7,000 pipes; in 1801, 11,000; in 1808, 13,000; in 1809, 15,000; in 1820, 13,000, and in 1825, 14,000. The export between the latter year and 1852 varied between 9,000 and 14,000 pipes annually. The oidium then made its appearance, and, after it had been overcome, the phylloxera followed in 1871, and in its turn was got under control in 1876, when American vines were procured, and on these hardy stocks the native vines were grafted. Since

then the amount produced has been steadily increasing. During the five years 1878-1882 the increase was as under:

Export.	Litres.	Value—Milreis.
1878	829,022	419,808
1879	1,139,697	529,854
1880	1,438,515	665,987
1881	1,344,420	665,723
1882	1,660,800	859,989
Totals.....	6,412,514	3,139,360

During the past eighteen months the island has suffered a great deal, in many ways. There have been prolonged droughts, followed by cyclones, and agriculture in every branch but wine-growing has given poor returns, so that famine has prevailed in various quarters, and the local authorities, aided by private charity, have had to come to the assistance of the peasantry. Sugar planters of the Sandwich Islands have contracted for immigrants from Madeira on an extensive scale, and every month a thousand of them have been taken off by steamers destined for that part of the Pacific.

This wholesale departure of valuable farm-hands and their families from Madeira has, as may be presumed, alarmed the local authorities and the government at Lisbon, so that at length they have been stirred into activity to ameliorate if possible the condition of farming interests. Taxes have been reduced; food and aid in money have been distributed; harbor improvements are being made; ships' dues are reduced, and a thorough administrative reform has been inaugurated to preserve the island from depopulation and decay.

The port charges for loading and unloading at Madeira were so heavy that the Canary Islands have taken away a great many vessels which used to go there for revictualing.

The Portuguese are a sober, thoughtful people, not given to revolutions; but, however well they may manage affairs at home, they have mismanaged and neglected their valuable colonies, and the consequence is that on the west and east coast of Africa other nations are beginning to encroach on them. In fact the Congo Conference now in session at Berlin would never have been convoked if the Portuguese had bestowed more attention on their colonial empire. But the Congo Conference will at any rate effect this much good—that Portugal will have to thoroughly reform its colonial system in accordance with modern ideas.

The resources of Madeira as a producer of excellent wine and as a place of resort for invalids and of call for vessels are so valuable and great that the energy now shown in rescuing the garden of Africa from rapid decline can hardly fail to be attended with the desired success.

While other European nations are now making a great effort to improve and acquire colonies, it is to be hoped that there may be buoyancy enough left in the descendants of Henry, the navigator, to once more bring prosperity to the valuable remnant of colonial possessions which he and his illustrious followers bestowed in the little state at the extremity of Western Europe.—*American Mail and Export Journal.*

THE BEAUTY OF COAL.

Lyell, in his experiments with coal, remarks "that after cutting a slice so thin that it should transmit light, it was found that in many parts of the pure and solid coal, in which geologists had no suspicion that they should be able to detect any vegetable structure, not only were annular rings of the growth of several kinds of trees beautifully distinct, but even the medullary rays, and, what is still more remarkable, in some cases even the spiral vessels could be discerned." Again in another place, "the high state of preservation in which many of the objects occur, the perfect condition of the leaves, and other parts of many of the ferns, the preservation in which many of the sharp angles of numerous stems and plants known to be of a soft and juicy nature, with the surfaces of a sagillaria, especially marked with lines, streaks and flutings so delicate that the mere drift of a day would have inevitably destroyed them, together with the occurrence of certain fruits which are found in heaps and clusters, together with many other facts of like nature leading to similar conclusions, convince us that these objects have never been subjected to drift, but were buried on the spots where they lived and flourished." We quote these evidences of the perfect preservation of fragile plants and of fruits of a remote age as an important reason why further inquiry as to its cause should be made. If these plants were suddenly immersed in a fluid