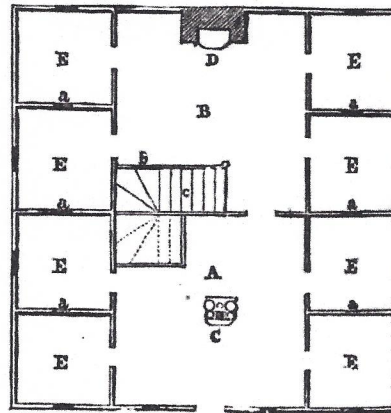


ECONOMICAL DWELLINGS FOR PLANTATION LABORERS—(Fig. 50.)

TO THE HON. J. S. SKINNER:*

MY DEAR SIR—I have availed myself of the earliest opportunity, which a pressure of business would allow, to prepare a brief description of the buildings erected in 1843, by my father-in-law, the late VIRGIL MAXY, Esq. as quarters for the field hands and their families, employed on his farms at West River, Maryland, which I promised to furnish you with when I last had the pleasure of seeing you in Washington; and I now have the honor to transmit to you, at the same time, drawings of one of these buildings, (the two being essentially alike,) exhibiting it in plan, side and front elevation, and in perspective. For these very artistic drawings, I am indebted to Mr. J. G. Bruff, of the Topographical Bureau, Washington. They are in some respects inaccurate, as will be seen from the text.

The perspective view presents a very exact picture of one of these houses, and the plans I trust will be readily understood. One of the buildings is surrounded by groups of large and venerable locust trees, with a pump of pure water near the front door. The other stands in the vicinity of a beautiful grove, and numerous young trees have been recently planted around it, as well for ornament as for protection from summer's heat and winter's cold; while a copious and never failing spring of cool and delicious water gushes out of a ravine hard by. Both houses are so situated that the down fall water drains from them in all directions.

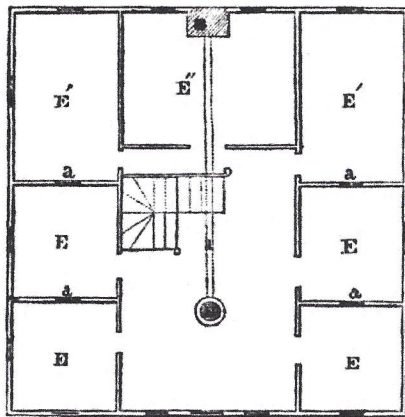


Second Floor—[Fig. 52.]

The house (to which the drawings refer) is 34 feet square, on the ground plan, from outside to outside; and from the bottom of the sills to the top of the plates, is 16 feet high. The sills rest on stone walls, (laid in cement) sunk 2 feet below the surface of the ground, and rising one foot above it. The rooms on the ground floor have a pitch of 10 feet including the joists—the upper rooms are therefore 6 feet high to the eaves or top of the plates, and rise to the height of 10 feet along the roof. The large room E' and the open space adjoining it, have a uniform pitch of 10 feet. All the rooms on the second floor are lathed and plastered over head. Those on the ground floor have no ceilings, below joists.

The sills and posts are of white oak—the former, 12 inches square, the latter, 8 by 7 inches. The plates are of white pine, 8 by 7, and the rafters of the same materials. The frame has no braces, the exterior covering rendering them unnecessary, and at the same time imparting to it great strength and rigidity. This covering or siding consists of 2 inch white pine plank, (commonly called ark-stuff, and costing at Port Deposit, about \$8 per M.) jointed and spiked vertically to the frame. The joists are covered on the exterior with narrow slats or buttons of the same materials. The roof is rather flat, covered with white pine shingles, and projects from the walls about 30 inches all round. It is also provided, as will be seen from the drawings, with a simple kind of barge-board, cut in a rough way from pine planks.

The ground floor is formed of cement. The space within the sills and foundation walls is filled with clay, *hard rammed*, to within about 2 inches of the top of the sills. On this sub-stratum, the cement is deposited. It consists of a mixture of 10 parts, irregular brick fragments,



Ground Plan—[Fig. 51.]

EXPLANATION.—(Reference to Ground Plan and Second Floor.) A. kitchen—B. living room—C. cooking stove—D. Franklin stove—E E' E' dormitories—E' and E' family rooms—F. drum—a. lattices for ventilation—b. closet—c. stairs—d. pipe of drum.

* Furnished for the Cultivator, by Mr. SKINNER.

rather less (in the average) in cubic contents, than black walnuts, 5 parts of clean sharp sand, and 3 parts of the best hydraulic lime. If the cement is not of the best quality, the fragments should be reduced to 8 parts; oyster shells, when convenient, may be advantageously substituted for brick-bats.

The cement and sand are first thoroughly mixed, care being taken that no more water is used than is just sufficient to produce a slight cohesion; the great mistake is often made of employing too much water. After the mixture has been well worked, the fragments are added, with a little more water if thought necessary, and *thoroughly* incorporated with the other ingredients. When fit for use, the mass must present a perfectly homogeneous appearance. This condition of things is essential to success. It is then to be immediately removed before it has time to set, to the place which it is to occupy, to be deposited in a layer sufficiently thick for the purpose designed, and hard rammed with quick short strokes, until it is quite solid, and gives no more under the rammer. This operation will bring a good deal of water to the surface, from what had seemed to be a mass of materials but slightly moistened. After the whole floor has been formed in this manner, and before it has time to dry, it is *sluiced* with water, covered with clean straw, to retard evaporation, and at least twice a day for 12 or 14 successive days, deluged with water. At the end of this period, the straw is removed, and the floor is permitted to dry, when, if the cement has been of good quality, and all the operations have been properly performed, it will be found to be as hard and as firm as a solid rock, which no moisture can effect, no vermin penetrate, and that will wear as well as the best mica-slate pavement. To give it a smooth surface, it will be expedient to plaster it with a thin coating of *coal-gas-tar* sprinkled with sand. When this is quite hard and dry, the house may be occupied.

I have recently employed cement manufactured in the manner just described, for the floor of a meat house much infested with rats, with complete success.

A barrel of cement costs in Baltimore, \$2.25, and is sufficient with the other materials, to make about 168 square feet of floor, 2 inches thick.* It would, however, I think, be better to form the floor 3 inches thick, which would make the barrel equivalent to about 112 square feet.

There is but one entrance to the house, which leads into a room 16 feet square in which is placed a large cooking stove. This apartment serves as a kitchen, and communicates with a back room of the same dimensions, in which is fitted a Franklin stove for the purpose of affording an open and cheerful fire. This may be called the living room, to which the people generally retire on coming in from labor, and to dry themselves in wet weather; but when not at work, they usually occupy both rooms indifferently. They have each two windows of 6 by 10 glass.

On the ground floor are eight dormitories, opening into the large rooms, each 8 feet square. They are lighted by windows of 4 panes of glass, so arranged that they may be opened by moving the sashes aside.

An easy flight of stairs leads from the back room to the second floor—under the stairs is a back closet for the convenience of the cook. The landing place on the second floor is in an open space 18 by 12 feet. Into this space, the rooms of this story open. They are appropriated to married people and children. The four smaller rooms are 8 by 10 feet—the two marked E^r are 16 by 10 respectively, and the one marked E^v is 15 by 12. The whole of this portion of the building is kept warm and comfortable in the coldest weather, by a large sheet iron drum, heated from the cooking stove. From the drum, a pipe is carried to the chimney through the room E^v. In each partition, separating the dormitories, on both floors, a *lattice* is fitted, ranging with the gable windows, and over each door is left a space 6 inches square for the purpose of ensuring a nearly uniform and agreeable degree of warmth throughout the building, in wet and cold weather, and a free circulation of pure and dry air

* Coals, lime, &c., are usually sold by imperial *heaped* measure, which makes the bushel equal to 2,815 1-2 cubic inches nearly, and I think the barrel contains about 3 bushels, or 48-9 cubic feet nearly.

whenever the state of the atmosphere will permit the windows to be open. The vacant space in the 2d story is occupied by the children as a play room and for drying clothes in wet weather, and in summer, some of the boys prefer to sleep in it. As soon as the hot season sets in, the cooking stove is removed to a detached building, and is not brought back to its place till the return of cold weather. In the mean while, when necessary, a fire is burnt in the Franklin stove.

It will be obvious to the most superficial observer, that in planning this house, the leading objects have been comfort, economy, and the saving of fuel, in the accommodation of a considerable number of persons, rather than the study of architectural effect; and yet, as the perspective drawing shows, the *tout ensemble* is quite agreeable to the eye. This is owing to the good proportions of the building, the flat and projecting roof, and a slight degree of simple ornament. It still wants what may be cheaply supplied, a rustic porch at the entrance. This might be formed by entwining the boughs of cedar trees, inserted in the ground for the pillars, and covering them with creeping vines. These quarters afford more room for their occupants, in proportion to numbers, than the best permanent barracks usually extend to the soldiers of an army; while on the score of privacy, warmth, ventilation and general comforts, they are also superior.

Two objections may, with some propriety, be urged to these arrangements for the accommodation of laborers: 1st, the risk of fire—2d, the greater danger from contagious and infectious diseases. To the first, it may be answered, that there are but two fires in a house, and both of them on an incombustible floor. And to the second, that from the dryness and cleanly nature of the floors, and the careful ventilation which may be always attained with little trouble, there will be less liability to contract sickness, especially typhus fever, than if they occupied (as they too often do) small and badly constructed houses; and that if a contagious disease should break out on a plantation, it would be as likely to spread among the people, from the fact of their working so much together, in the one case as in the other.

The cost of these buildings was about \$700 each, and I am satisfied that similar structures might be erected in any part of the State of Maryland and Virginia far that.

Very respectfully, your ob^t serv^t,

GEO. W. HUGHES.

GROWING LETTUCE EARLY.

MR. TUCKER—Those who are fond of lettuce, usually desire to have it as early in the spring as possible, and before other products of the garden are ready for the table. An obvious means of procuring the article early, is the hot bed; but that is not convenient for every one; though materials for constructing the hot bed should be at command, the attention and watching which it requires may not in all cases be readily spared. This consideration led me, some years ago, to make it a subject of special inquiry, whether it was not possible to have early lettuce without the hot bed.

Lettuce, it was noticed, will bear uninjured, a hard frost; under some circumstances, that which comes up in the fall, will live over winter; in which case it will grow to a proper size for eating much sooner than the spring sown plants. It seemed natural therefore to conclude that we had only to protect it from very severe and long continued frost, in order to preserve it alive till spring. With this view, I tried covering it with straw, corn-stalks, stable litter, leaves, boards, mats, but invariably without success; it would all perish. This result was unexpected. What killed the lettuce thus protected? It could not be frost, for care was taken in each case to cover the lettuce so that it should not be exposed to greater cold than it endures without the least injury. Perhaps it was smothered; that is, deprived of a sufficient supply of air. But I had taken care, in one instance, to cover it with a box large enough to enclose an ample store of air. Yet here the lettuce died. While reflecting upon this subject, it occurred to me that the death of the lettuce might be owing to its seclusion from the light; which we know to be essential to the healthy growth of