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The Farmer's Journal.

NEW MODE OF BUILDING.

The *Utica Morning Herald*, a journal conducted, in the adjacent State of New York, with great originality and ability, contained in a recent number a description of some new buildings admirably adapted for FARM and COUNTRY houses. In looking into the subject we find that the materials used in the construction of these buildings are lime, stone, and gravel, and the structure itself a modification of the plan first used on this continent in 1850, in the State of Wisconsin by Mr. Goodrich, of Milton, and composed of coarse gravel, sand, and lime.

Mr. Goodrich in pondering on the materials which nature has provided for the building of human and other habitations, reasoned that lime stone, and gravel stones, and sand abounded almost everywhere, whereas wood in some localities as on the Wisconsin prairies was scarce, and he determined to try if it was possible to amalgamate the first into a building material. Knowing that limestone becomes disintegrated by burning, and that it afterwards forms a cement when slackened with water, mixed with materials to which it can adhere, and exposed to the atmosphere, he determined to try these materials thus treated and brought together. He built an academy, the walls of which hardened with age, and then a blacksmith's shop, and finally a range of stores and dwelling houses. His neighbours criticised the buildings as they were separately constructed, and thought that walls

constructed of materials so common and so roughly put together would never stand. He met these criticisms in a practical Yankee spirit by allowing the objectors to stand inside his building and strike with a large sledge hammer as hard as they pleased for six cents a blow. He knew that no blow from the most powerful man could burst out his walls, and calculated that the trifling sum named would repair all damages.

The Messrs. Fowler of New York, who saw this plan of building in Wisconsin, and who were about to build at Fishkill, on the River Hudson, appreciated the cheapness and excellence of Mr. Goodrich's system, and proceeded to apply it on a larger scale, and to simplify the mode of building the walls, and to suggest a new, or octagonal form for building houses, the plans of which we are allowed to give in this number of our issue together with the description and details, which will enable the reader to study the system and test its value if he thinks proper to do so.

In selecting the materials used for building it is said all that is required is stone and lime. The stone requires to be of various sizes from tolerably fine sand, to stones as large as the fist or head, but in addition to sand, oyster shells, brickbats, clinkers, slates, and any hard substances may be thrown in, all that is required being something solid for the lime to adhere to.

The Lime recommended is the coarsest and commonest kind, such as farmers put upon their lands. The usual mortar bed is made with boards twelve feet wide by sixteen long, with boards eighteen inches high all round. Six or eight wheel barrows full

of coarse lime should be thrown into the bed, and stirred up with water so as to make the composition about the consistence of milk. To eight barrows of lime should be added sixteen or eighteen barrows of sand, and the lime, sand, and water should be completely and rapidly incorporated, by hoeing the contents backward and forward. If the sand rendered the mixture so thick as to prevent the perfect admixture, two or three additional pails full of water should be added, leaving it so thin as to follow the men about as they work the material from side to side. Some fifteen or twenty minutes would suffice for this amalgamation, and when completed several men should be employed in wheeling small stones, shells, and chips of slate, to be followed, as the mixing continues, with coarse rubble and other stones, brickbats, and larger materials, dumped in by running the barrow over a board on the bed. Sixty or eighty barrow loads of these might thus be mixed with the eight barrows of lime, making with the sand about one hundred barrow loads in all, and the sand, lime, and stone, well and thoroughly mixed would be ready for use. A frame or box of boards is made by nailing two tiers of boards, inside and outside, to scantlings or standards, well braced to render the dimensions true, and left within the walls. Three scantlings to a wall of thirty two feet should suffice, and two boards of sixteen feet long suffice for the outside walls. When the frame is made the building material is thrown in with a shovel or dumped in from a barrow, or a barrel worked with a horse and tackle. To give the walls time to harden a second tier of boards are nailed on above, and