

is required for immediate use. After getting the proportions of gravel and cement on the platform, pile the mixture in a cone shape and then turn it over twice, with shovels, open from the center to the sides, leaving the mixture about equal all around; pour into the center two pailfuls of water, turn the backs of shovels from you and push the mixture from all sides into the water, making the shovels go down to the platform every time, so that all the mixture is moistened. This will form a small trench all round inside of the dry mixture. Now pour more water all round in this trench, then push in more dry mixture as before. Repeat this until the mixture is all moistened. Again pile in a cone shape and turn over twice, and the concrete is ready for use. The old plan of using a box and hoes in mixing concrete is a mistake. When concrete is slushy, the sand and gravel sink to the bottom, and the cement, being lighter, rises to the top, which, besides seriously weakening the cement, renders a uniform mixture and thorough ramming—which is absolutely necessary—impossible. (See Government report.)

FOUNDATIONS.

Excavate to the depth required, at least below frost. Foundations should not be less than eighteen inches wide, and where the ground is soft and springy, increase the width to twenty or twenty-four inches, as required. Begin work by spreading concrete two or three inches thick over the bottom of the foundation, and fill in with stone (if they are available), well hammered down, and kept apart so that concrete may be rammed firmly between them. Level up to the largest stone with concrete and smaller stone, then put on not less than two inches of concrete, followed by more stone, hammered and rammed as before. On no account put tile or any drain lengthwise under the walls. If drains are needed for surface water, on the outside, or for springs inside, keep some distance from the walls, and, if necessary, pass under them at right angles. Foundations should be finished as nearly level as ground will permit.

FRAMES FOR BUILDING WALLS.

Bed planks on each side of foundation to exact wall line. For the outside corners, nail two planks firmly together at right angles, then put in angle a three-cornered strip, made by ripping a two-inch square piece diagonally. For the inside corners, set up a 4x4 scantling to the exact wall line. Then set up scantlings to support the two-inch plank on each side of wall, and toe-nail