The floor of Library should have joint, 9 by 12 crossing from the wall to the girders on the opposite side of room, 1-2 in every 4 or 5 joint. This would tie the walls together, and make firm work. The ties would be 30 ft or 40, in length. The joint should have a double tier of cross trays between them, and be damped with 2 inches of clay, sand and lime.

There is still another way of laying the joint, thus: and either way would be sufficient for good work. Laying the joint lengthwise, instead of crosswise, but still depending upon the joint A A for support to girders, 12 x 12 running across instead of lengthwise, reversing the position of the timber. This mode is not so good as the other, as the side joints would not be so well tied together. The tie however, would depend upon having the ends secured to the wall by wires, at least in a few places. No 1. on the other page is the best mode provided the joint have a wall of cutting half to next station. If not No. 3, with girders running lengthwise and the joint over lapping, 1-2 and then tying the 2 sides together.