6. All brick work shall be laid in spread mortar, with all joints push-filled. Exposed joints both inside and outside shall be struck smooth. No plaster lining permitted.

7. Concrete chimneys cast in place shall be suitably reinforced vertically and horizontally. The walls shall be not less than 3¾ in. thick and shall be lined with fire clay flue lining.

Flue linings may be omitted in reinforced concrete chimneys for private dwellings, provided the walls of the chimneys be not less than 6 in. thick, and provided further that quartz gravel shall not be used as the coarse aggregate. See Appendix 3.

8. Concrete blocks used in chimney construction shall have walls not less than 3¾ in. thick, and blocks enclosing more than one flue shall have suitable reinforcement completely encircling the blocks and well embedded in them. All concrete block chimneys shall have fire clay flue lining. See Appendix 3.

9. Stone chimneys shall be at least 4 in. thicker than required for corresponding brick chimneys, and shall have fire clay flue linings. Rubble stone chimney walls shall be not less than 12 in. thick.

10. Hollow building tile shall not be used for the walls of isolated or independent chimneys, but may be used for chimneys built in connection with exterior hollow tile walls of buildings not exceeding three stories in height, in which case the chimney walls shall be not less than 8 in. thick. The outer 8 in. of a building wall may serve as the outside wall of the chimney, but the remaining chimney walls shall be constructed of two layers of 4-in. tile set with broken joints; or they may be built of 4 in. of solid brickwork. In either case the walls of the chimney shall be securely bonded into the wall of the building. No chimney shall be corbeled from a hollow tile wall. All chimneys built of hollow building tile shall have fire clay flue lining. See Appendix 4.

11. Chimneys shall be built at least 3 ft. above flat roofs, and 2 ft. above the ridges of peak roofs, and shall be properly capped with stone, terra cotta, concrete, cast iron, or other approved material; but no such cap or coping shall decrease the required flue area. See Plates I and II.

12. Fire clay flue linings shall be manufactured from suitable refractory clay, either natural or compounded, which has a softening point not lower than 1994 deg. fahr. (Seger cone 03), and shall be adapted to withstand high temperatures and flue gases. They shall be of standard commercial thickness, but not less than ¾ in. The flue sections shall be set in mortar of quality hereafter specified and shall have the joints struck smooth on the inside. The masonry shall be built around each section of lining as it is placed, and all spaces between masonry and linings shall be completely filled with mortar. No broken flue lining shall be used. Flue linings shall start at least 4 in. below the bottom of smokepipe intakes of flues, or from the throats of fireplaces, and shall be continuous the entire heights of the flues and project at least 4 in. above chimney top to allow for a 2 in. wash and a 2 in. projection of lining. The wash or splay shall be formed of a rich cement mortar. To improve the draft the wash surface should be concave wherever practical. Instead of the wash, a special chimney cap or coping may be used. Wherever flue linings are specified fire brick may be substituted if desired.

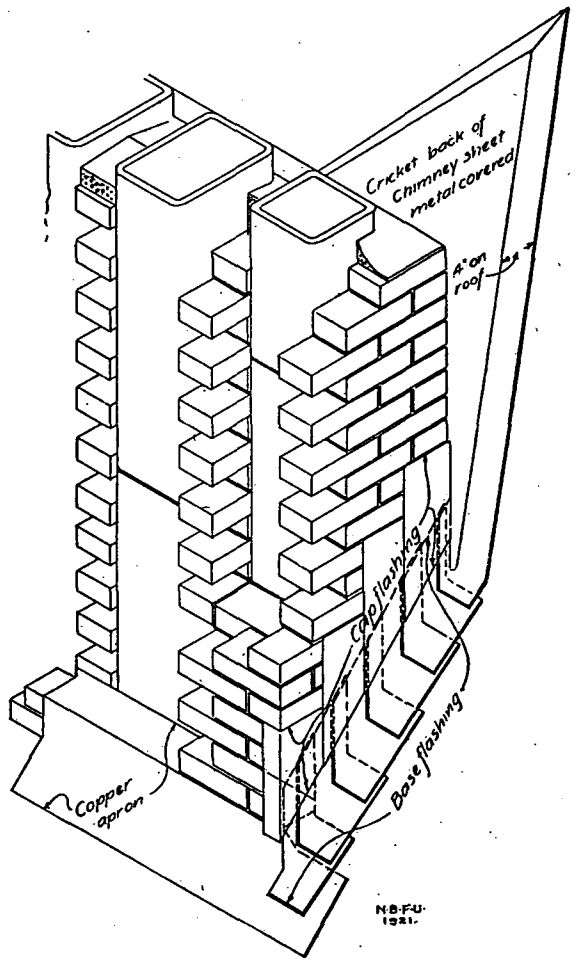

PLATE II.

Details of chimney construction showing method of flashing at roof surface also a wast course, but no cap surrounding flues at top. See Plate I.