

## CEMENTINE CONSTRUCTION.

Half-timber construction was common in the Middle Ages, and even in the time of Elizabeth and the Stuarts. In Chester and York linger many examples of exterior oak and plaster, which have survived the ravages of wind and weather for 400 years. The new-fashioned half-timbered house will be popular, because cheaply built and of unlimited variety of detail.

Expanded Metal lath is susceptible to a wide range of architectural treatment for the exterior of buildings, from factories to residences. In old structures the lath is applied to steel or wood studding to form the base for fireproof cement or pebble dash work, inviting finish treatment of any imitative character desired and at a much reduced cost. Recently, the Pennsylvania Railroad Station at New Brunswick, New Jersey, an unsightly affair, half brick, half frame—was renovated by this method in tinted plaster. A uniform and attractive appearance was thus inexpensively imparted to a rambling series of buildings upon which a sentence of demolition had been seriously debated.

The Cementine system on wood frame structures consists in furring the diagonal sheeting outside the studs with  $\frac{1}{4}$  in. round iron rods, 8 in. to 12 in. centres, over which Expanded Metal lath is stapled securely. Buildings accorded this monolithic treatment are *warm in winter and cool in summer*, are tight and dry, and need no painting. A *perfect key* is afforded the mortar, as elsewhere explained, and the shape of the meshes is such that all expansion or contraction is taken up in each mesh instead of at the end of the sheet. The Ordnance Offices at Chatham, the Children's Home Hospital at Barnet, the Dublin Gas Co. Works, and St. Andrew's Hall at Cardiff are some of the examples of cementine work in England. The exterior walls are of cement mortar alone, plastered upon Expanded Metal lath. That temperature or climate oppose no hindrance to this modern construction, and that emphasis may be given to its wide range of utility, we would instance the extensive soap works of the W. and H. Walker Co., Pittsburgh, or the Providence Gas Works—and the building of the Anglo-African Trading Co., Bulawayo, Rhodesia. The first named, by the way, included five buildings; in roofs, walls, floors and partitions there were needed 103,000 square feet of flooring material and 297,000 square feet of lathing. It may be said in truth that there is no existing method other than this whereby so much of substantial value can be presented for an outlay so small. Considering the resultant economy in decreased weight of foundations, the cost of cementine factory construction is about one-half that of brick. Space forbids anything further than a simple reference to the eminent suitability of fire-resisting cementine construction for summer hotels and residences, hospitals, theatres, hotels, school houses, insane asylums and other homes for helpless people; in addition to the palpable benefit, as regards sanitation and safety from fire, which would accrue from the adoption of Expanded Metal construction throughout.

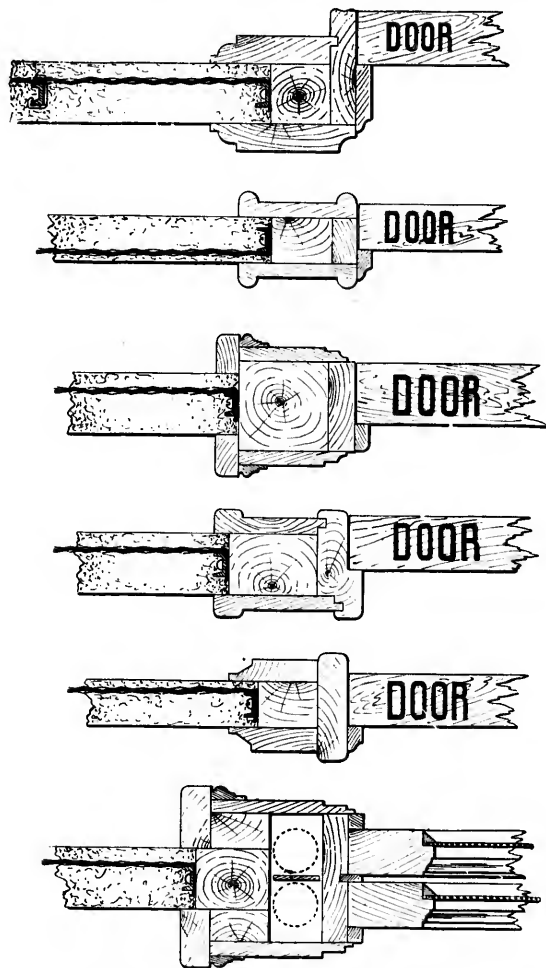


Fig. 5, Quarter Scale.—EXPANDED METAL SOLID PARTITIONS.  
Showing Door Framing.