

feet, add relief to the effect, and in their composition have richly trimmed windows, over which are panels embellished with wreaths and scrolls in bas-relief, the former having panels with 1776 and 1876 thereon. The corners of the building are octagonal in form, with rich capitals and cornice, above which latter are placed flower vases in metal. The sides of the structure are in quiet harmony with the fronts, differing only in detail, the principal feature of which is the treatment of the panels below the cornice, wherein are three fine rosettes from which hang garlands of fruits and flowers. The roof is hipped, its appearance of length being reduced by the transverse ridge, which rises slightly above the main ridge. The roof is covered with leaded iron, put on with standing seam. The interior is finished in sheet metal, the broad surfaces, dome and wainscot being of corrugated leaded iron, the moulding of galvanized iron, and all enrichments, such as center-pieces, rosettes, and mould ornamentation, of pressed sheet zinc. The plan of the interior is a plain parallelogram, 20 by 40 feet, pierced at sides, front, and rear, by six large windows, and two entrances. The walls start from a wainscot, above which to a line twenty feet above the floor they are sheathed with a fine corrugated leaded iron, placed horizontally; at this point

an enriched cornice is carried around the apartment, from which springs a massive dome ceiling, the entire size of the interior of the building. This is sheathed the same as the walls, and is relieved by cable-mould ribs running from the wall-cornice to the foot-mould of the lantern, which latter rises two feet in height. The dome is quite novel in treatment, and adds very much to the beauty of the room, having an effect of loftiness and freedom seldom found in apartments of similar size. The interior is tinted, that the action of the materials upon colors may be clearly demonstrated. The exterior has been left as it came from the mills and shops, that those interested may better understand the exact condition of the material before it is painted. In the interior are richly ornamented decorations of various kinds, made of metal. It was the intention of the company to make this building the headquarters for all who are interested in building matters. They claim as follows:

1st. Better workmanship and results than in other materials.

2d. Greater durability at less cost than in other materials.

3d. Better effects architecturally and at less cost than in other materials.

4th. Fire-proof qualities—comparatively.

5th. Best facilities for substantiating the above claims.

FULLER, WARREN & CO.,

Troy, N. Y., Chicago, Cleveland, and New York. The building containing this exhibit is located on Fountain avenue, west of Machinery Hall. It has the sides of glass, thus affording light sufficient to minutely examine the contents. The decorations are chaste and elaborate, and make one of the most attractive edifices on the grounds. In the interior are shown their heaters, ranges, cooking and parlor stoves

of every description. Upon many of these the most prominent parts have been nickel plated. Several of the stoves were kept running during the entire exhibition, so that they might be easily understood by visitors. To make and continue this display the firm have been to an enormous expense, though the praise elicited from all, and the favor with which they have been received have partially reimbursed them.

CHAS. NOBLE & CO., PHILADELPHIA.

LIBERTY STOVE WORKS.

The display of stoves, ranges, etc., made by this firm, in the building erected by them expressly for the purpose, forms one of the most attractive features of the whole

exhibition. The building, a cottage-like structure, in the Gothic style of architecture, occupies one of the most eligible positions on the Centennial grounds. It is erected on a rising knoll, directly west of

Machinery Hall, and opposite the C. T. A. U. fountain. The structure is 31 by 41 feet dimensions, is built of wood, leaving the framework exposed from the outside, and is elaborately ornamented with rich mouldings and scroll work. The body of the building is painted a bright yellow, while the framework is of a light drab tint, and the ornamental work of a rich vermilion. From the center of the pointed roof rises a cupola, octagonal in form, painted in light tints, surmounted by a staff from which floats the National flag. The entrance is by two large doorways, one on the south, the other on the north end, over each of which appear in large letters the words, LIBERTY STOVE WORKS. The building is well lighted by means of large windows on all sides, and every facility is afforded the visitor for examina-

tion and inspection of the many kinds and styles of stoves and ranges there displayed. This elaborate structure, on account of its architectural beauty, and the prominent position it occupies, is the most conspicuous among the many objects of interest in that section of the Exhibition grounds, and large numbers of visitors are attracted to it daily.

The interior arrangements are very perfect; there being plenty of room, the exhibits are not crowded, and here are shown specimens of each and every kind of stove manufactured by this firm, from the laundry stove to the heavy range. An important feature being the group of stoves forming a pyramid several tiers in height, which occupies the center of the building.

CENTENNIAL GLASS WORKS.

During the entire six months of the Exhibition, at some distance west of the western end of Machinery Hall, a large building, with high chimney continually vomiting fire, became a marked attraction to young and old. This is a branch of the Franklin Flint Glass Works, of Philadelphia, owned and operated by

MESSRS. GILLENDE & SONS.

It is still the most popular resort upon the grounds, and to not have visited this establishment is to have missed a grand display. Here all the latest improvements in the mystery of turning sand into glass, are practised by a full corps of regular blowers. Whether glass was or was not an invention, let those who delve in mysteries determine. It is reported as an accidental discovery of some weary camel drivers on the desert. The founder of the present house commenced in 1860, and in 1862 took as partner Edward Bennett, who retired in 1870.

PREPARING THE BATCH.

The batch is the mixture of sand, silice, and other materials in proper proportions according to the desired quality, color, or transparency required; for though the in-

gredients vary but little, the proportions are very sensibly changed. The building of Gillender & Sons contains a tall, tower-like melting-furnace, tapering in form, widest at bottom and narrowest at top. This is provided with several of the fire-clay melting-pots, under which rages a fierce fire of bituminous coal. Smaller furnaces, not furnished with any vessels at all, but heated to even an intenser heat than the central steeple, crammed with flame serve as attendant sprites of furious fire to the main reservoir of caloric. While the principal furnaces are content with meals of soft coal, the eight satellites will endure in their salamander stomachs no less inflammable food than resin and crude petroleum. These fiery furnaces send up their columns of flame simultaneously, and call to the memory of the spectator the unfortunate but fire-proof young Israelites who were cast into a *glass-maker's* furnace while in full blast.

A large force of men and still more boys are in constant motion in the great Glass House. Half a dozen boys, provided with long, hollow iron tubes, go swiftly to the main melting furnace, stir up the molten glass within, and bringing out rosy balls on the ends of their metal sticks, roll