

for ingress and egress, to be used in succession by the vehicles on their arrival, a continuous passage of vehicles each way, without delays and without accumulation of traffic either upon the surface or in the subway, will be provided for. The working expenses of the lifts will in this way be also reduced to a minimum, for the power employed will always be in proportion to the number of vehicles passing through. During the hours of the day when there are but few vehicles passing only a proportionate number of the lifts will be used. In the case of the large lift, however small the number of vehicles—possibly for a single light cart—a platform capable of taking perhaps a score of vehicles, and consuming as much power as if it did, would have to be set in motion, and taken up and down.

Such, then, is a general outline of the latest proposition for affording the much needed accommodation for traffic below London Bridge, and which has our best wishes for its success. If carried out, as in the public interest we hope it will be, it will probably prove only the first of several which might be constructed at intervals to relieve the traffic and minister to the daily and hourly wants of a teeming population still further eastward. We should not omit reference to

Exterior (Figs. 1 and 2).—The outlines are angular, and somewhat picturesque. The body is two feet above ground, and but a few easy steps are required to reach the entrances from the outside. The extensive veranda and other projections afford protection from storms to the windows and entrances, besides affording desirable shade. The roofs are of dark slate, one-third of those on the main roof being pointed and laid in belts. A cresting of ornamental iron is set along the main ridges, and, when properly connected with ground rods, serves to protect the building from lightning. The window openings have a single light of plain glass in the lower sash, and several smaller tinted lights in the top one. The tinted glass, in a variety of colors, produces, with little cost, a very cheerful effect both outside and inside.

The cellar equals the first story in area. It has an outside entrance, five windows, and stairs leading to the first story. Height of ceiling, 6½ feet.

First story (Fig. 3).—The height of the ceilings is 10 feet. There are four good sized rooms, each with outlooks at their sides and ends. The main entrance is from the front veranda, through a good sized and pleasant vestibule,

paneled and moulded. The inside finish is clear pine, reeded with blocks. The inside walls and ceilings are hard finished on two coats of brown mortar, and the principal rooms of the first story have neat stucco cornices. The painting is two-coat work, of selected colors.

ESTIMATE. COST OF MATERIALS AND LABOR.

160 yards excavation, @ 25 c. per yard...	\$40.00
15,000 brick, foundation and chimneys (complete), @ \$15 per M.	225.00
32 feet bluestone, steps and sills, @ 30 c. per ft.	9.60
1,000 yards plastering, @ 30 c. per yard....	300.00
210 stucco cornices, @ 20 c. per ft.	42.00
5,000 feet timber, @ \$20 per M.	100.00
100 joists, @ 16 c. each	16.00
250 wall strips, @ 11 c. each ..	27.50
4,500 feet sheathing, @ 3 c. per ft.	135.00
450 clapboards, @ 16 c. each	72.00
21 bunches shingles, @ 1.50 per bunch...	31.50
24½ squares slate, @ \$9 per square	220.50
950 feet outside flooring, @ 5 c. per ft.	47.50

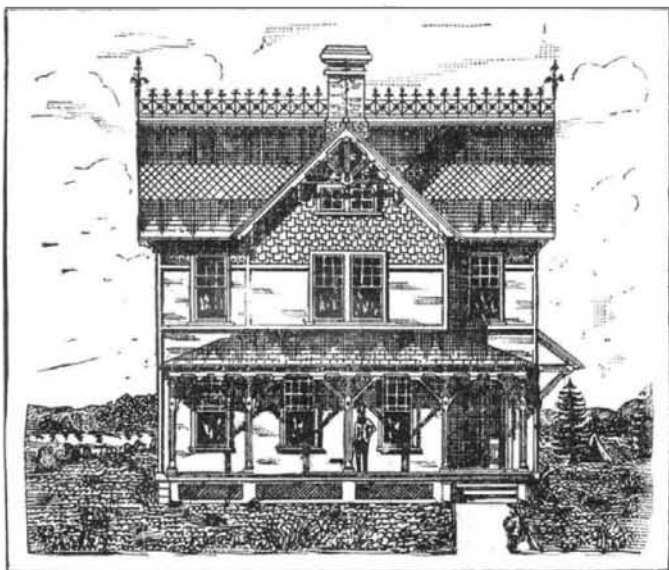


FIG. 1.—FRONT ELEVATION OF HOUSE COSTING \$2,500.



FIG. 2.—SIDE ELEVATION OF HOUSE COSTING \$2,500.

an important physical feature of the districts to be connected by the subway as favoring this mode of crossing. Between the north side and the south there is a difference of level to the extent of thirty feet. By employing hydraulic power these different levels will be united by a level roadway, and thus will be secured the advantage of a perfectly level bridge, where from physical and other circumstances it is impossible to have such a bridge.

The total estimated cost of the works, land, property, etc., is £275,000, and the time necessary to complete and open the subway about eighteen months. The engineer to the works is Mr. J. H. Greathead, M.Inst.C.E., and we understand that Sir William Armstrong & Co. will undertake the supply and erection of the hydraulic lifts and machinery.—*Iron.*

(AMERICAN AGRICULTURIST.)

A HOUSE COSTING \$2,500.

WE present in illustrations 1, 2, 3, 4, and 5, plans of a house, containing ten good sized rooms, a large veranda—costing \$2,500, and presenting a neat and attractive appearance. The building is of Queen Anne style, now becoming so very popular, and makes a very handsome and commodious residence for town or country. The general arrangement was suggested by a woman, who determined to dispense with the conventional main hall and stairway, occupying the most prominent place in the front part of the house, and provided, instead, a vestibule entrance outside the house, from a part of the veranda. This puts the stairs in a less conspicuous place, with approaches from two directions at the foot, thus making them serve equally well for general or family use from the main house, and as a private stairs from the rear extension.

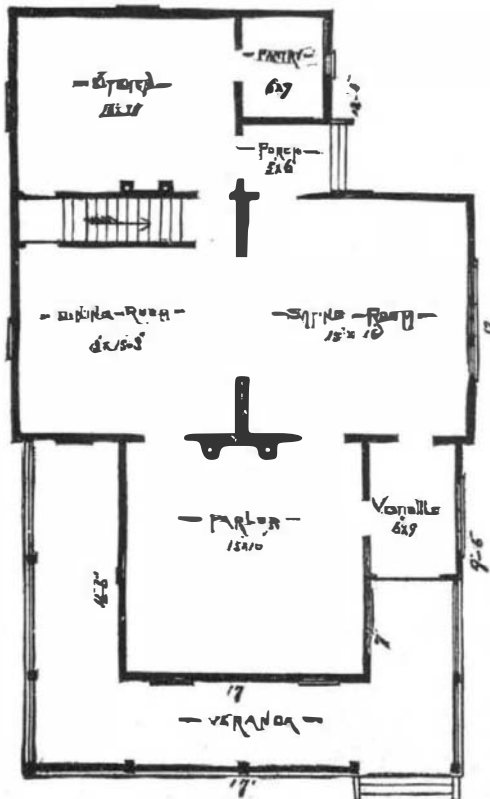


FIG. 3.—MAIN FLOOR OF HOUSE COSTING \$2,500

which is lighted at the side by a cluster window of tinted glass, and has side and end doors opening to the parlor and sitting room. The parlor has four windows facing three directions, each protected from storms, and agreeably shaded by the veranda. There is a large open fireplace, and doors communicating with the sitting and dining rooms. The sitting and dining rooms adjoin each other through sliding doors, which admit of their being used together, as occasion may require. The kitchen is convenient, well lighted, has a large fireplace, with range, and adjoins a pantry. The rear entrance, or porch, is also reached through a door from the sitting room. The stairs to the cellar and to the second story are placed between the dining room and kitchen, and may be reached from each direct.

Second story (Fig. 4).—Height of ceiling is 9 feet. This story has a central hall, three chambers, three closets, and a trunk room. The stairs to the attic are placed above those of the first story.

Attic (Fig. 5).—Height of ceiling is 3 feet at the plates or sides, and follows the rafters to the full height of 7 feet. A hall and three chambers are finished on this floor, with the doors and windows placed in the center of the ends of each.

Construction.—The foundations and chimneys are of hard brick, laid in good mortar. The frame is of sawed spruce; with siding, for the body, and clapboards laid on thickened sheathing and building felt. The gables and frieze courses are of redwood shingles, also on sheathing. The main roof is of dark slate, laid on sheathing and tarred felt. The veranda roofs are also of slate, laid on inverted pine flooring. The flooring outside is of 1½ by 4½ inch T and G pine; inside of 1½ by 7 inch T and G spruce. The windows have plank frames, with 1½ inch sash, glazed with second quality French glass. The doors are of seasoned pine,

2,650 feet inside flooring, @ 4 c. per ft.	106.00
5 cellar windows, @ \$3 each.	15.00
23 full sized windows, @ \$8 each.	184.00
11 half windows, @ \$5 each.	55.00
20 doors, @ \$7 each.	208.00
3 stairs, @ \$10 each	30.00
Veranda and porch finish.	50.00
5 kegs nails, @ \$4 each	20.00
4 closet finish.	20.00
Mantels.	30.00
Tin gutters and leaders.	20.00
Carting.	20.00
Painting.	180.00
Carpenter's labor (not included above) ...	240.00
Pump, sink, and incidentals.	60.00

Total, complete. \$2,500.00

ATMOSPHERE AND SPACE IN PAINTING.*

By G. A. STOREY, A.R.A.

ART is full of problems—to some they appear mysteries—and there is a notion that an artist has but to stand before his canvas and call forth a picture into existence, as though he did it with a wand like a magician, or the good fairy in a pantomime; but this is not so. He has to work out his pictures and his problems, not by arithmetic, or algebra, or geometry, but by thought, and observation, and experience, and also by an additional power which I can only describe as feeling or love, which is a kind of sympathy in the artist for the beauty and the character of the objects and the scenes he represents. It is an enthusiasm for the observation of nature, which was carried to its extreme by the great painter Turner, who caused himself to be lashed to a mast for four hours that he might study a snow storm at sea. He did not

* A lecture read before the Society for the Encouragement of the Fine Arts, May 31, 1883.

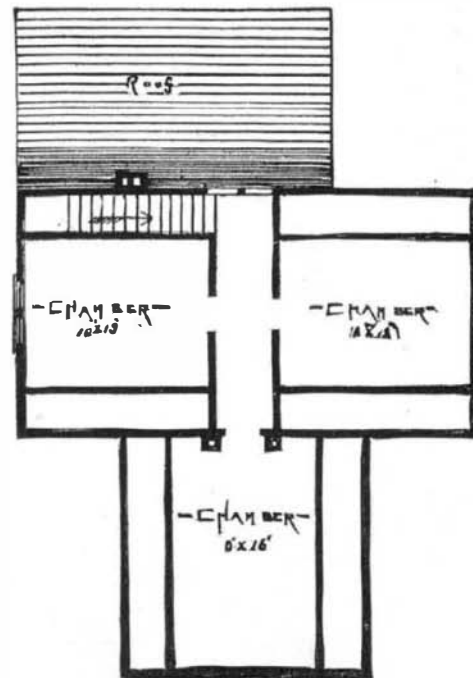


FIG. 5.—ATTIC OF HOUSE COSTING \$2,500.

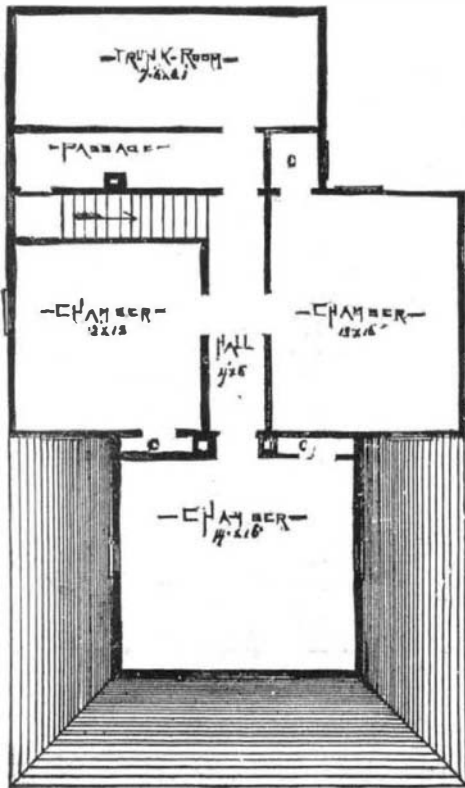


FIG. 4.—SECOND STORY OF HOUSE COSTING \$2,500.