Planning of the House.

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Planning of the House.
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VII. Lightning.

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VIII. Painting.

1. Interior.

2. Exterior.

IX. Papering.

X. Effect of the home upon the character.

References:

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II. Building of the House by A. F. Halley.

III. Beautiful Houses by H. Williams and Mrs. C. Jones.

IV. Household Economics by H. Larnsbree.

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VIII. Household Economics by M. Carlow.
There are four things which must be considered in building a house, namely, special needs of the family, funds available for furniture, location, and soil. The soil is divided into two classes, ferrous and non-ferrous; the former permitting the water to percolate fully through it, while the latter being of very compact nature, prevents sub-surface drainage. Gravel, sand, and soft limestone are instances of the first class, clay being of an impermeable nature. The nature of the soil must be given greatest consideration in deciding upon a location for health depends largely upon the condition of the soil. Poorly drained ground is producing of a great many of the most dreadful diseases while highly porous soil is freest from germs of disease. The dry porous soil is essential to the maintenance of good health. Many soils contain decomposing organic matter, the gases from which is allowed to...
enter the house are very injurious to the health. Therefore, the ground upon which the house is to be built must be as free as possible from such organic substances. The ground water or sub-soil water in the earth, flowing on the surface of an impermeable layer and below the surface of the ground, if present in any direction, horizontal or vertical, this ground water must be very far below the surface upon which the house is to be built. The depth at which the water is formed may be determined by boring. If the soil is forest, it must be thoroughly drained, the drainage being the preferable method of house. The house should be built on an elevated spot which has a slight slope so as to favor natural drainage. It is best to have the house face south, for thus the kitchen will be toward the west, making it a cool place in which to work in the mornings, and the living-rooms will be cool in the afternoons. The house should be...
situated, that the air will shine everywhere, some time during the day for sunshine is essential to the maintenance of health. It is well to leave trees near the house for they soften organic impurities, absorb ground moisture, and make the rooms cooler and more pleasant. However, they must not be so thickly planted that an abundance of sunshine and air cannot circulate freely. If it is too shady about the house, the soil will be damp and hence a good place for bacteria. It should be situated at least two hundred feet away from any source of contamination, such as openings of any drain, marshy place, etc. In the city, a corner lot is the most desirable plan for the house, for then the occupants can obtain more fresh air and can live a more peaceful life for there will be close neighbors on one side only hence there will be less noise. When selecting the location, one should choose a lot which is convenient
An market and place of business and
in a pretty part of the town where a
good clod of people live, the need
of the family and the amount of
money which can be expended, de-
terminating the size and shape of the
house and the materials to be used
in its construction. The cost of the
house depends upon the nature
of the site and the ease with which
the building materials and labor
may be obtained. Everything
should be the best for the best is
more than good.

The cellar should be under
the whole house, for then the house
will not be closely connected with
the ground, and hence the ground
air will be prevented from entering
the house. It is essential that the
cellar be constructed so it will be
perfectly dry. Since the ground-
air contains many gases greatly
diluted, it is very injurious to
health. The effect of such air
is not soon apparent, but the
injury is more the lessive.
The best way to prevent the gases from entering the house is to have a thick bed of clay on the cellar floor and over this, a layer of coarsely broken stones, the spaces between the stones being filled with crushed rock and finally the surface covered with cement. This floor will give a firm support to the cellar walls which should be thick and firm to support the weight of the house and prevent frost and heat from entering. The walls should be covered with cement and present entrance of dampness and soil air. To avoid dampness the cellar should be drained and in order to do this, a trench, slanting slightly, should be dug in which earthen pipes should be laid. These pipes must be covered with nearly two feet of clay. To protect the walls from moisture, clay should be packed in the space between the rough edges of the ground and the stone wall. The ceiling of
The cellar should be plastered and plastered, and the walls and ceiling white-washed. The foundation of the walls should be built hollow to prevent dampness entering the house, and should be high enough above the ground, to allow windows to be inserted. In order to have the cellar sweet and in the best sanitary condition, it must have plenty of light and fresh air; there must be windows on all sides of the cell and they must not be situated under porches.

The plumbing should be of the best quality and should be in sight so any defects in the pipe may easily be seen and repaired. There must be the least possible horizontal piping. The fixtures which include water-closets, wash-bowls, etc on the different floors are to be placed over each other. The house drain receives the contents of the soil and
waste-pipes; the continuation of the house-drain outside of the foundation should be about five inches in diameter, in order that it may be thoroughly flushed. It should be of iron and have tight joints. A trap should be in the house-drain near the cellar wall to prevent the poisonous sewer air entering the cellar. This trap must have an opening so it can be reached and thoroughly cleaned. A trap is a bend in the pipe which retains water to prevent the sewer air from passing. The water should stand at least one inch above the bend in the pipe. If it is lower, the foul air is permitted to pass, for a space is left above the water. If there is too much water in the trap, that is, if the water seal is too deep, the solid materials will not be carried out of the trap. Each water-closet, bath-tub, sink, etc. should have a trap and only one. Siphonage, which is...
breaking of the water seal by the foremast, is a vacuum, and must be guarded against by ventilating pipes. The ventilating pipe should be of cast iron coated inside and outside with asphalt. It should be four inches in diameter and should extend about two feet in a straight line above the roof. The opening must be protected from falling leaves and other things by a wire screen. This opening must be away from any windows or chimneys. A refrigerator waste pipe must not have direct connection with the soil pipe or the house drain. The kitchen sink should be of iron with porcelain lining and it should have a high porcelain lined back. This sink will be easily cleaned and it is sanitary. The faucets should be set well up and back of the sink and the sink should be wide to prevent dishes being easily broken.
when washing therein it, it should have a shelf, grooved and slightly slanting forwards the sink, at one end and a broad smooth shelf at the other end. It should have a fairly fine wire strainer screwed in place over the waste-pipe and the pipes underneath the sink should not be enclosed with wood-work. When a sink is enclosed with wood-work, a dark cup-board is formed which is an excellent place for filth to accumulate and bacteria to multiply. A bath-tub of iron with porcelain lining is sanitary and that is the kind with which this ideal house is to be supplied. The stationary basins are unsanitary in the sleeping-room or in closets adjoining if without independent ventilation, but when they have waste-pipes of proper size and material and the waste-pipes contain a good trap, they are perfectly sanitary in the bath-rooms. The leather-valves
basing seems preferable. The wash-down water-closet is the best; it should be flushed from a special cistern of wood with metal lining and capable of holding from three to five gallons of water. This cistern should be situated about four feet above the receptacle and have a straight flush pipe not less than one and a fourth inch in diameter.

There are many reasons which indicate that furnace heat (hot dry air) is most to be desired. A furnace should be situated toward the northern part of the house. The furnace is really a large stove made of cast iron. The joint of which should be horizontal, inclosed with galvanized iron. From this inclosed chamber are pipes leading to the various rooms. Cold air is brought into this chamber by means of the cold-air box which is a passage leading from the exterior of the house to the furnace. The hot air pipes should be so arranged that the
air from the cold-air box has to pass around the furnace once before passing into the hot-air pipe. The cold-air box must be perfectly tight so the cellar-air and dust cannot enter it and thus pass up the hot-air pipe and finally contaminate the air of the rooms. The area of the opening of the cold-air box should be equal to the area of all the registers, less one sixth; it should be about two feet above the ground, and on the side of the house away from the street to prevent much dust from entering; it must also be away from any drain-ventilation, or any other source which may make the air impure. The ground beneath the opening must be sloping so air in returning moisture rapidly. It is necessary to have a wire screen over the opening to prevent leaves and small animals from entering.
is best to have two air-shafts and have them on different sides of the house. The cold-air box, furnace, pipes, and registers should be large enough to supply the house with a large volume of warm air but not heated to a temperature above 120°. The pipes must be covered with asbestos and they must be at least two inches from any woodwork so there will be no danger of fire. The horizontal pipes should not be any longer than fifteen feet as heat has a tendency to rise. It would be difficult to heat the rooms on the first floor if the horizontal pipes were too long. It is even easier to have the registers placed in the wall for then they do not collect so vast an accretion of dust, which they are in the floors. Dust is frequently swept into them and this dust is again sent into the air of the rooms by
The rising current. The registers should be so they can be removed and cleaned.

As pure air is one of the most essential points to consider in maintaining good health, it is necessary to provide some means of ventilation besides the doors and windows. For this purpose it is desirable to have several fire-places, one for each bedroom if possible, as well as in the sitting-room, hall, and dining-room. A fire-place is not only a perfect means of ventilating but it adds beauty and cheerfulness to the room. The wood-work must be protected so there will be no danger of fire, and this can be accomplished by surrounding the fire-place with brick. Shallow fire-places give more heat with less expenditure of fuel than the deep fire-place. The facing and hearth should be
of glazed tiles which are easily kept clean and reflect the light. Another way of providing for ventilation is to have an air-shaft near the chimney. The chimney, in order to draw well, must be constructed high enough so the openings will be free from all obstructions.

The most sanitary method of lighting the house is by means of electricity, for then the air of the room is not made sapphire as is the case when other means of lighting is used. The must be one bulb in every room in the house also in the basement rooms, bath rooms, and halls; in the library and sitting rooms, the bulbs must be provided with ground glass shades. The

The interior woodwork should be of hard wood finished in a good finish, and finally coated with a filling and finally coated...
with varnish. It should be simply and not have many crazes and carvings which will collect dust. The exterior should be painted in shades harmonizing with its surroundings.

In selecting wall paper, there are several points to be considered namely, the size of the room, position of windows, the purpose for which the room is to be used, that the surface to be decorated is flat, that the walls are flat and the figures must be in accordance with this fact, that the paper is to serve as a background for the pictures and furnishing, and that color of the paper must harmonize with the carpet. The paper shouldn't have large designs nor should it be colored too highly; paper with small figures are in vogue, sombre colors, makes...
the best background for pictures. If the room is dark, light colors should be used on the walls as they reflect the light and make the room more cheerful. But if the windows are large and the room is light, dark colors may be used. The paper on the walls should always be darker than the ceiling paper and the color of the carpet should be darker than the walls.

This gives a general idea of the various points to be considered in planning a house. This house plan can be changed to suit the individual's taste but many of the things placed in this house must be found in every house in order to be sanitary and artistic. The home has a great effect on
The character and health of its inmates and as it makes the nation, it should be as nearly perfect as possible. A town that has no conveniences and beauty, mars the character of those who live in it, for beauty and artistic taste in the house, ennobles and enriches the home. It is true that "the house is the expression of the character of the household."