

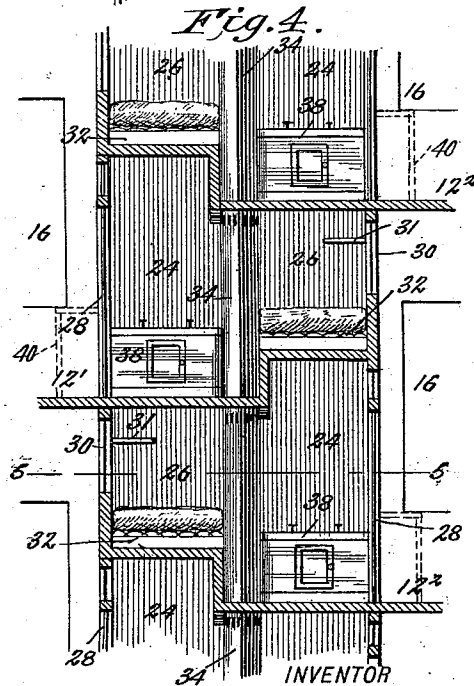
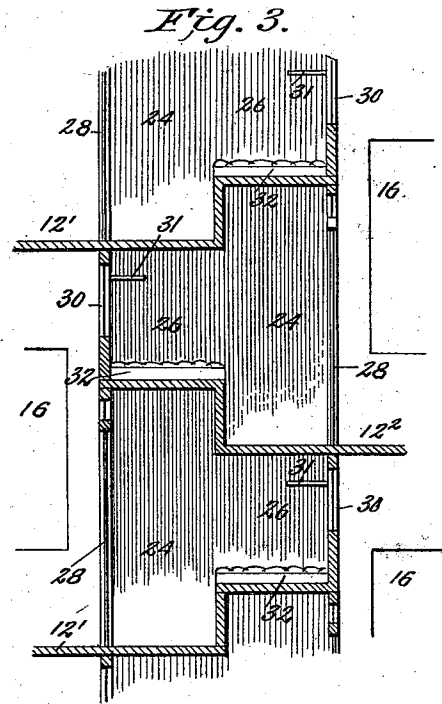
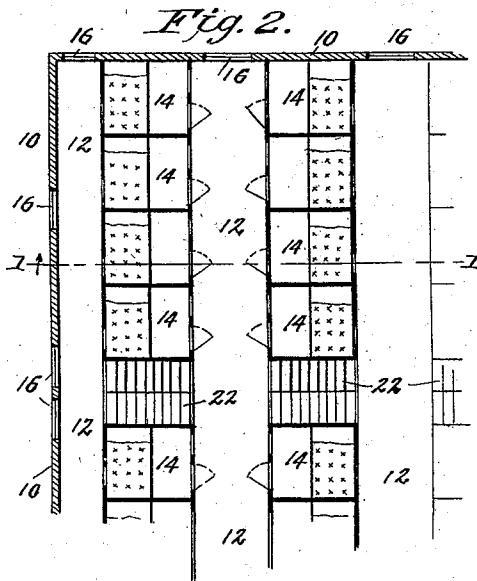
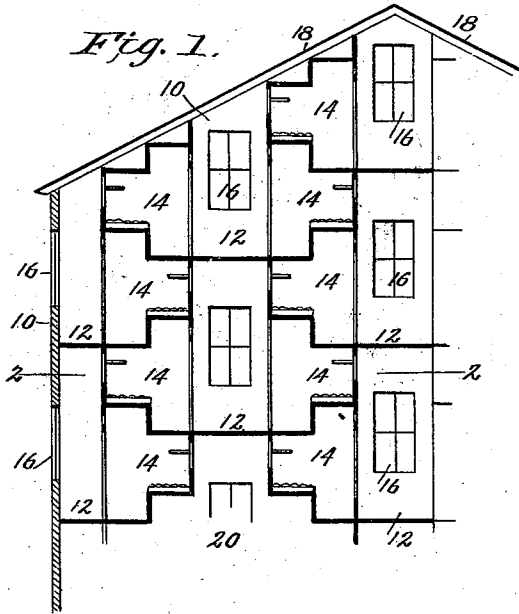
(No Model.)

4 Sheets—Sheet 1.

G. T. TILDEN.
DWELLING.

No. 514,789.

Patented Feb. 13, 1894.



WITNESSES:

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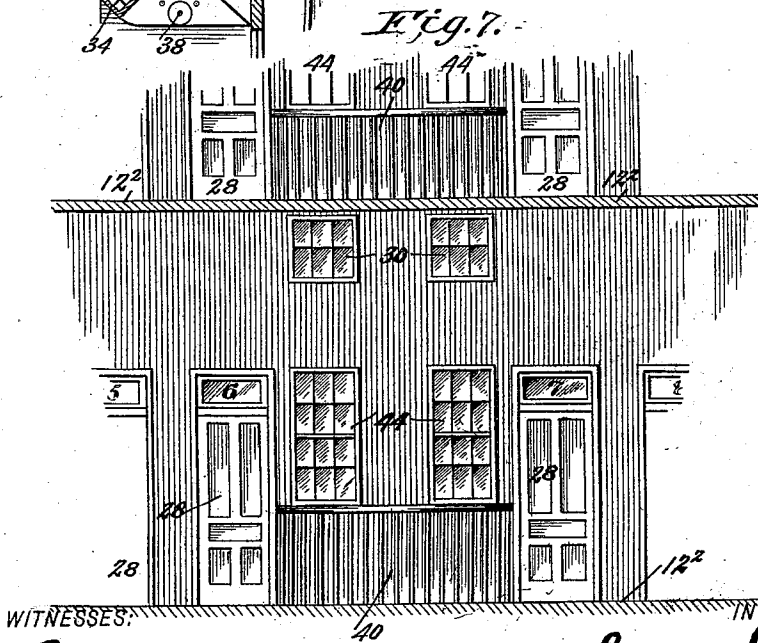
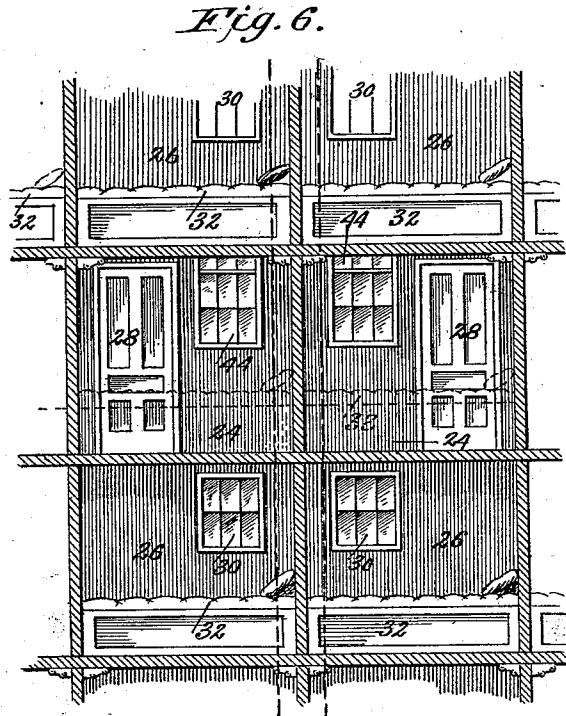
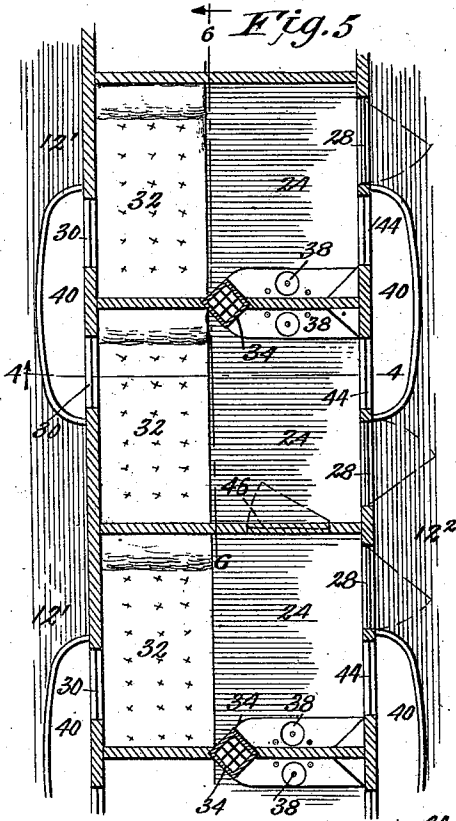
(No Model.)

4 Sheets—Sheet 2.

G. T. TILDEN.
DWELLING.

No. 514,789.

Patented Feb. 13, 1894.



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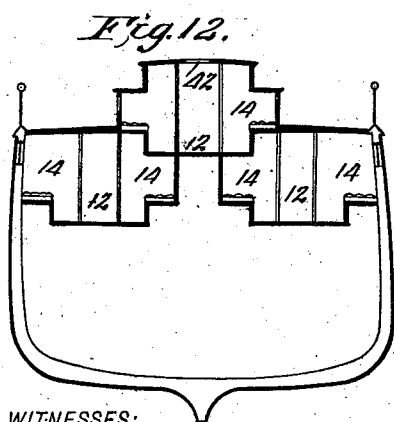
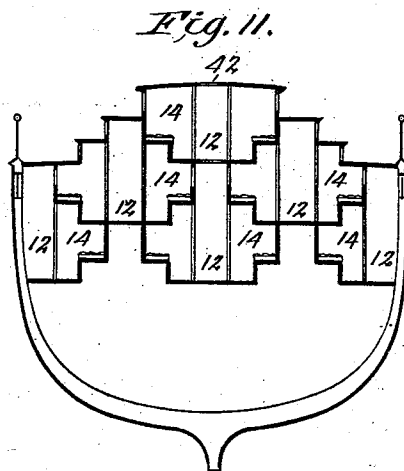
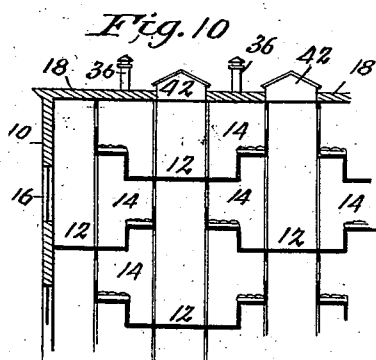
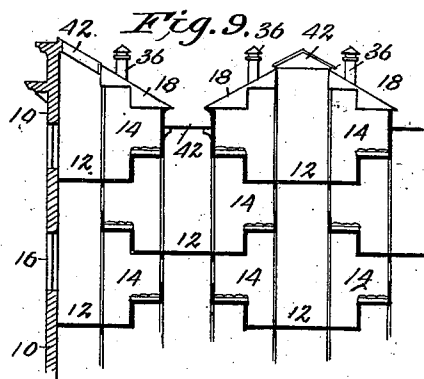
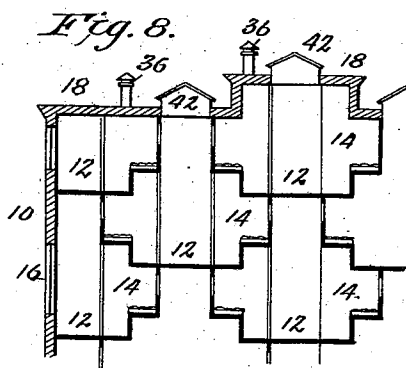
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G. T. TILDEN.
DWELLING.

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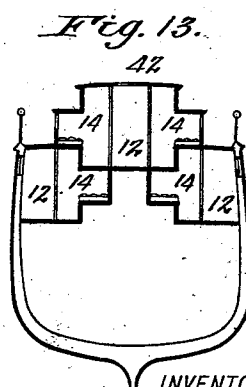
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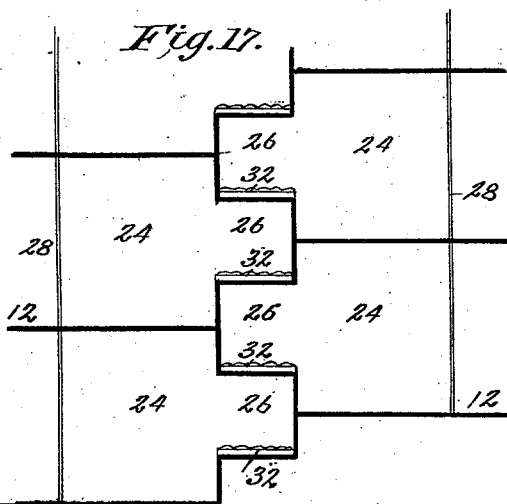
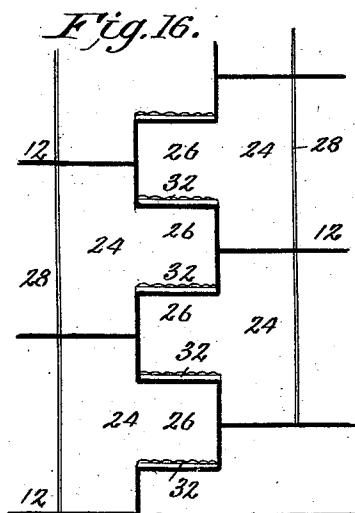
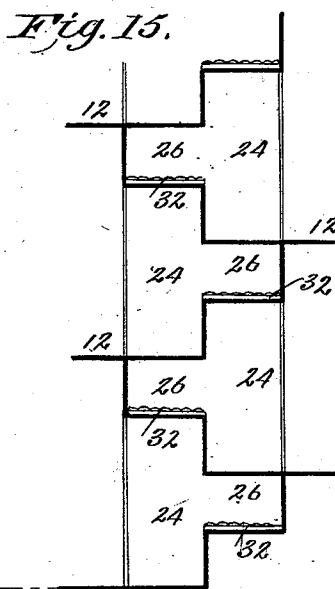
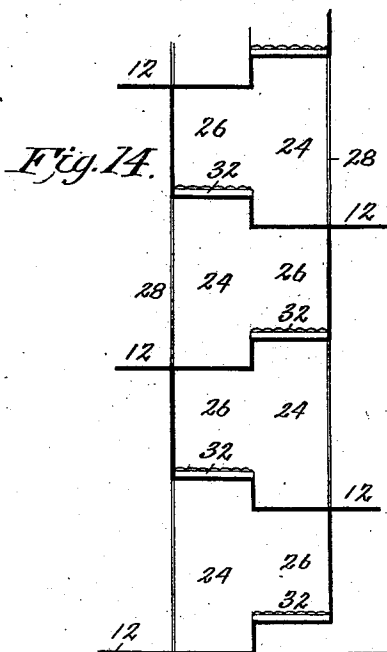
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4 Sheets—Sheet 4.

G. T. TILDEN.
DWELLING.

No. 514,789.

Patented Feb. 13, 1894.



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UNITED STATES PATENT OFFICE.

GEORGE T. TILDEN, OF MILTON, MASSACHUSETTS.

DWELLING.

SPECIFICATION forming part of Letters Patent No. 514,789, dated February 13, 1894.

Application filed September 20, 1893. Serial No. 486,005. (No model.)

To all whom it may concern:

Be it known that I, GEORGE T. TILDEN, a citizen of the United States, and a resident of Milton, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Dwellings, of which the following is a specification.

My invention is related to those designed to establish systems for the advantageous and convenient distribution of rooms within an inclosed space of given size, and its specific object is to secure in addition to the favorable arrangement of the rooms in a building, an actual economy in the use of the available space at the disposal of the architect.

In lodging and boarding houses for persons of small means, and especially for single persons, it has hitherto been difficult to provide dwellings securing the essentials of living and privacy at a sufficiently cheap rate. The present invention overcomes this difficulty in a great degree by providing a much larger number of accessible rooms and sleeping places, than have hitherto been got within the same space. This is accomplished by constructing tiers of small rooms one above another opening on passage ways running from end to end of a building. Each of these rooms is recessed to form a sleeping place, and the space under the mattress which appears as a solid block in each recess is added to the dressing space below, giving head room there; while about an equal space above the sleeping berth is given to the room above so as to lower the floor on which the occupant there stands. A necessary result of this disposition of the space of each room is the encroachment on every floor-level of a part of the rooms below it, and in consequence an interlocking of the rooms in the several tiers in a manner to be presently explained.

In the drawings which form part of this specification, Figure 1, is a cross section on a small scale of part of a house in which the rooms are disposed in accordance with my invention. Fig. 2, is a plan or cross horizontal section showing some of the rooms in Fig. 1, as they appear from above. Fig. 3, shows in section two of said rooms on a much larger scale. Fig. 4, shows in vertical cross section two rooms as in Fig. 3 with increased floor-space. Fig. 5, shows in plan on the same scale three rooms such as those in Fig. 4, with the

disposition of ventilating and washing appliances indicated. Fig. 6, represents in vertical longitudinal section the rooms forming part of a tier or block. Fig. 7, is an elevation from a corridor of rooms with windows looking out on the same. Figs. 8, 9, and 10, show diagrammatically on a small scale the manner in which roofs of known kinds may be adapted to the tiers of rooms. Figs. 11, 12, and 13, illustrate the way in which my invention is adapted to the economic disposal of space on board ship. Figs. 14 and 15, are modifications of the relative dimensions and positions of sleeping berths. Figs. 16 and 17, show other modifications.

In Figs. 1 and 2, a part of a dwelling house is shown in the internal arrangement of which my invention has been applied. The outer walls in these figures are marked 10. The corridors are 12, the rooms are 14, the windows which admit light for the corridors and indirectly for the rooms are marked 16. The roof in Fig. 1 is 18, and space for a common hall below may be found at 20. In Fig. 2, the stairways connecting three corridors are shown and are marked 22. Fig. 1, is a vertical cross section on the dotted line 1—1 in Fig. 2, and Fig. 2, is a horizontal section on the line 2—2 in Fig. 1.

Fig. 3, illustrates my invention on a much larger scale. In this drawing two complete rooms are shown in vertical cross section. These form a couple and are part of a vertical tier of rooms constructed so as to save much space. In this and the other figures on this scale, 24 represents a dressing room or vestibule as I shall call it, and 26 a sleeping couch or berth projecting therefrom which together constitute a "room" as here understood. The door 28 opening into the vestibule may be constructed partly of glass to give light from the corridor 12' (though it is not so shown in the drawings), while 30 is a window frame in the berth itself opening on the corridor 12'. 31 is a shelf in the berth 26.

The rooms shown in Fig. 3, serve to illustrate well the principle which is involved in my invention. It will be seen that if the berth 26 instead of being half the height of the room, were carried down to its floor and up to its ceiling thereby giving rise to a square room of ordinary character without recess, no space of essential value would

be gained for the occupant thereby. This will be apparent when it is remembered that a square room would require a bedstead which would take the place of the practically solid block on which the mattress rests as indicated in the drawings; and that the space below said mattress and also a like space above it from the ceiling downward for two or three feet, may be dispensed with and divided between the vestibules of two other rooms without the sacrifice of important accommodation. In the carrying out of my invention this is done, and the saving effect is directly proportional to the space dispensed with above or below the sleeping berth and used in the vestibule space of other rooms. In Fig. 3, the saving amounts to one fourth, but in accordance with the necessities of the case it may exceed or fall below this amount. In Fig. 14, the mattress 32 in the berth is nearer to the floor and more room is provided overhead; there is, accordingly a smaller saving than in Fig. 3. In Fig. 15 on the contrary, the berth is about the size of those common in sleeping cars, and the saving is therefore very much greater. This method of saving useful and available space necessitates the intimate interlocking of the rooms in vertical tiers, that is to say, the rooms are so placed, alternately, that the unessential space that can be dispensed with in one room, is made to furnish essential space in another room above or below it, without causing vacancies or gaps of any kind. Figs. 3 and 4 illustrate a vertical couple so interlocked; Fig. 5, a section on line 5—5, Fig. 4, shows a horizontal couple abutting end to end, and Fig. 6, four associated rooms forming a symmetrical block made up of two vertical and two horizontal couples with the air-shaft 34 common to all four rooms, (see Fig. 5,) indicated in position only by dotted lines in Fig. 6 which is a longitudinal section and elevation on line 6—6 Fig. 5.

In ordinary buildings the floors on which the several rooms are placed run through from wall to wall, but in a disposition of rooms interlocking in the manner described, the floors are broken or partially and are constructed at alternating levels. And as the rooms face in opposite directions, the floors of the corridors 12' and 12², (see Figs. 3 and 4) on which they open, are likewise at levels corresponding with the floors of the rooms to which they lead, and alternate therefore from one side to the other of a tier of rooms, as is seen in Figs. 1, 3 and 4, and other figures. It may be said therefore that the rooms (each consisting of a vestibule and berth), are arranged in ascending series on partial floors at alternating levels, half the rooms in a vertical tier being entered from corridors or passage ways on one set of levels, and half from those upon another.

In the figures heretofore discussed the several rooms arranged in rows and facing in opposite directions, extend, each of them, through the whole thickness of the tier, so that the windows 30 in the berths of a set of

rooms entered from one corridor, may open on another corridor at a different level. This is not a necessary condition, nor is it always desirable, though convenient and agreeable for the occupant in many respects. By virtually separating the two sets of rooms opening on different corridors and dropping the berths one upon another to form a double, in contradistinction to the single tier (already described), a still further economy of space is possible without altering the cubic content of each room. This is seen diagrammatically in Fig. 16. The interlocking in this modification of my invention is dependent on the overlapping of the berths from alternate rooms. By such arrangement the ventilation and light obtained in the single tier system by windows opening on the berths, are sacrificed; but a greater number of rooms can be carried up vertically in the double tier than in the single; and though the horizontal cross section increases in area, still the relation of that cross section to the floor space used for corridors is changed for the better, as can be readily seen from an inspection of Fig. 16. This method of interlocking admits of adding indefinitely to the size of the vestibule without sacrificing the economy obtained by causing the berths to overlap.

In Fig. 17 the part of the room I have called the "vestibule" and marked 24, is double the size of the corresponding part in Fig. 16, while the economy due to the interlocking and overlapping of the rooms is the same. In Fig. 4, which is a cross section on line 4—4 Fig. 5, the floor space in the vestibule 24, is also increased and that part of the room rendered more commodious thereby; but, as will be readily seen, economic enlargement in this way can only be made to the floor and not to the ceiling, and it cannot be carried very far without causing inconvenience.

In Fig. 5, (a horizontal section on line 5—5 Fig. 4,) the air-shaft 34 is shown through which most of the ventilation is accomplished for two adjacent rooms on every floor. Through this shaft (which has an exit 36 on the roof 18,—see Figs. 8, 9 and 10), the pipes for heating purposes and for water to supply the wash-basins 38, are carried; also the waste pipes for the same, and wires for electric lighting, or gas pipes, if gas is used for illuminating purposes. None of these details are shown in the drawings.

In Fig. 6 parts of the interior of four rooms are presented, the section being on the line 6—6 Fig. 5. This view is a vertical one through the length of the rooms; and the horizontal dotted lines indicate the level of the mattress in the berths of the upper couple. The vertical dotted lines in this figure serve to indicate the locality occupied by the air-shaft 34, which is not shown in section, to avoid confusion.

Fig. 7 represents in elevation the front facing on a corridor of a horizontal couple of rooms and part of another like couple above

them, the floors of the corridors only being cut through. From this view the manner in which I use the air and light openings 40, which are made in the corridor floors, and enclosed with railings as shown, will be understood. The corridors themselves are covered by skylights 42, in the roof 18, and lighted in other ways as shown. In Fig. 7, are also shown the windows 44, which face on the corridor and help to light the vestibules. In Figs. 8, 9 and 10, three different roofs are drawn in place, besides that shown in Fig. 1, which is a plain sloping roof well adapted to the configuration of the several tiers of rooms.

In Fig. 5, the position of a door is indicated with dotted lines in the partition wall separating two rooms, abutting upon each other end to end. Such a door may be introduced when desired for the purpose of establishing communication between adjacent rooms so as to fit them for occupation by one person, or in common by more than one.

My method of economizing space is especially well adapted for use in passenger ships, where it is essential to give to each state room the least possible space consistent with a reasonable amount of comfort and privacy for the passenger occupying the same during a few hours or days.

Figs. 11, 12 and 13, illustrate, for different amounts of available space on ship-board, how the same may be turned to the best possible account.

My system is also of great value in prisons of all kinds, work houses, cheap lodging houses, and in all other cases in which the complementary interlocking principle I have invented admits of application.

I do not wish to confine myself strictly to the details herein shown and described, being well aware that substantially equivalent arrangements may be devised without departing from the principles underlying my invention.

In this specification the word "uniform" applied to the rooms is intended to be understood as signifying that they are the same in size and internal arrangement of parts. It is however clearly impossible to apply this rule whenever the conformation of the confining walls or roof makes an alteration in the shape of a room a necessity; or when the omission of such alteration causes an undesirable waste of space, as in Figs. 8, 10 and 12. In like manner although my principle involves the vertical interlocking of a room with the rooms both above and below it, still in every tier the highest and the lowest room cannot interlock with one respectively higher or lower, and to that extent are exceptions to the rule. And, it should also be understood that in applying the word "facing" to the relative position of a room, I mean to define the direction in which its door opens for exit; said door being in its front facing on a corridor.

What I claim is—

1. In a dwelling, a number of rooms each consisting of a vestibule with a sleeping berth of lesser height projecting from it; the rooms arranged in vertical tiers and facing alternately on corridors on different levels; and each room interlocking with an adjacent room above or below it; substantially as described.

2. In a dwelling, a number of rooms of uniform size and form, each room having a high and a low part for standing and lying purposes respectively; and each room interlocking with another above or below it, both of which face in directions opposed to each other on corridors at different levels; substantially as described.

3. In a dwelling, a number of rooms each consisting of a vestibule and berth, the berth of less height than the vestibule and projecting therefrom; each following room in vertical series facing and opening in alternately opposite directions on the floor of a corridor level with its floor and intermediate in position between the floor-levels of adjacent rooms above and below it which open on corridors on the other side of the vertical series or tiers of rooms; substantially as described.

4. In a dwelling, a number of uniform rooms arranged in horizontal rows, one row above the other; each room provided with a horizontally recessed berth extending along its side, and each row of rooms overlapped by a like row reversed in position and facing on corridors leading from alternate rows; substantially as described.

5. In a dwelling, a symmetrical block consisting of four uniform rooms, having two end to end couples and two vertically interlocked couples; each room consisting of a vestibule and a sleeping berth of lesser height projecting therefrom; with a vertical air-shaft passing through the block so formed and common to all the rooms therein; substantially as described.

6. A dwelling consisting of a number of rooms arranged end to end on a partial floor to form a row of rooms opening on a corridor on said floor; each room consisting of a vestibule and berth, the former of greater height than the latter and rising above the level of the next partial floor; the row of rooms so formed having symmetrically upon it and upon the next floor above a like row facing in the opposite direction and opening upon another corridor on that floor; with a third or any required number of rows and floors constructed and superimposed upon the first in alternating positions with mutual interlocking of the complementary parts and the formation of a symmetrical vertical tier; substantially as described.

GEORGE T. TILDEN.

Witnesses:

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JAMES G. LAWRENCE.