M. ROGERS.

Wooden House.

No. 163,888. Patented June 1, 1875.

Fig. 2.

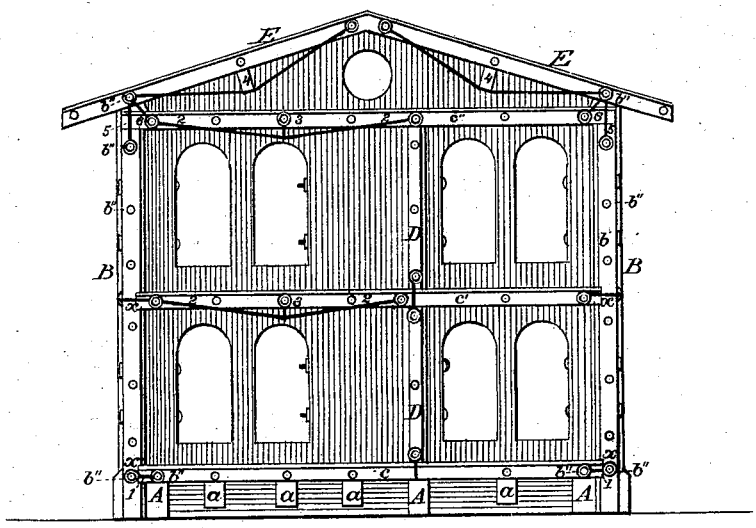


Fig. 1.

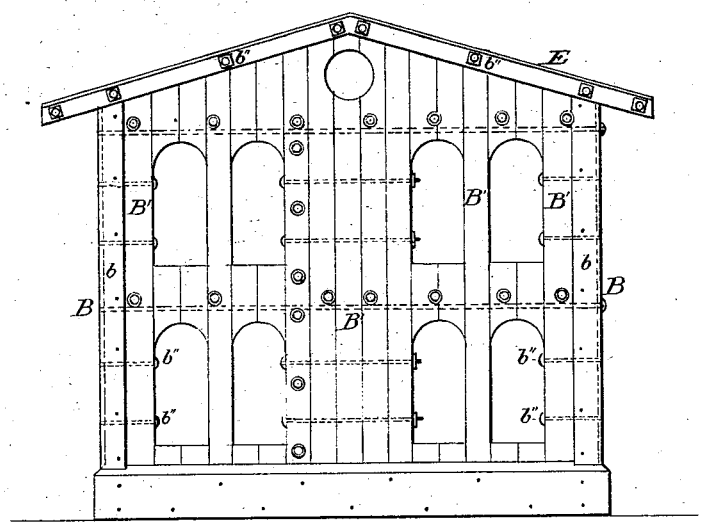
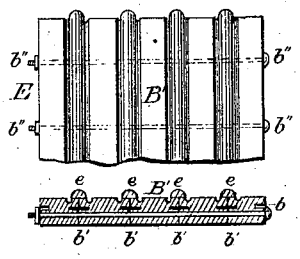


Fig. 3.



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UNITED STATES PATENT OFFICE.

MATTHIAS ROGERS, OF PHILLIPSPORT, NEW YORK.

IMPROVEMENT IN WOODEN HOUSES.

Specification forming part of Letters Patent No. **163,888**, dated June 1, 1875; application filed May 8, 1875.

To all whom it may concern:

Be it known that I, MATTHIAS ROGERS, of Phillipsport, in the county of Sullivan, in the State of New York, have invented certain Improvements in the Construction of Wooden Houses, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of this invention is to construct houses of plank, having the strength of a timber framing, doing away with the lathing and plastering, and without openings in the walls, partitions, floors, and roofs, in which rats, mice, or vermin can find a lodging-place, or to form a draft for fire to burn unseen; and it consists in the construction of the same, as will fully hereinafter be described.

In the drawings, Figure 1 represents the outside of end wall of a house; Fig. 2, the inside of same with floors, partitions, and side walls as projecting inward from the outside wall; and Fig. 3 a side and end view of roof in section.

A represents the sills that support the superstructure framed together in any suitable manner; *a a*, the joists or supports for the lower floor. B represents the outside wall of the building, and is formed of plank two or more inches in thickness to conform to the height of the house, as the higher the story or walls the thicker should be the plank. Wall B is made up of a series of narrow staves or strips, B′, dressed smooth on both sides, jointed on their edges, and narrow grooves *b* in their edges to receive a thin tongue or strip of iron, *b′*, which, when the edges of two staves are brought together thus grooved, and the metal tongue in the groove, forms a joint that neither water or wind can get through. At proper intervals these staves are bored through their width, and parallel with the face, to receive metal screw-rods *b″*, that will fit into the holes. On one end of these rods *b″* is a head and at the other a screw and nut. If the house is not too large the rods may be as long as the body of the house, or they may be in shorter lengths to accommodate handling and the forcing the staves onto the rods to form joints, and when used in short lengths the rods cannot be in the same line, as the second length of rod must be inserted into the last stave that fills the length of the first before it is forced home to a joint, as will be obvious to those acquainted with the art of building. When the full length of rod is filled with staves the nut on the screw-rod is turned home, and the staves that form a side or end are held together as firmly as if of a single plank. *c* is the lower floor resting upon the sills A and joists *a*, of plank dressed and put together in narrow strips and in the same manner as the outside walls B, by jointing, grooving, and tonguing, their ends resting in grooves *x x* cut transversely in the staves of the outside walls, as seen in Fig. 2. *c′* is the middle floor, put together in precisely the same manner as the lower floor and outside walls, and the ends of the floor-strips resting in transverse grooves *x* in the staves of the outside walls. *c″* is the upper floor, the same as *c′*, but the strips have rabbets in their outer ends and under sides, that rest upon the upper ends of the staves of the outside walls, as seen in Fig. 2. Floor *c′* is dressed on both sides, and forms the ceiling to the first story, when the building is two stories high, and all intermediate floors are also dressed upon both sides, while the upper floor need not be planed on the upper side unless it is to be used to walk over. D D are partition-walls between the rooms of the stories, and are also of plank in strips dressed upon both sides and grooved to receive a metal tongue, *b*, and held by the screw-rods *b″*, the same as the outer walls B, and as seen in Fig. 3. The floors are grooved both on the top and under side, where partitions enter such grooves, which secure the partitions from lateral movement. In order to hold the floor *c* firmly to the outer walls and in the grooves *x*, an anchor-link, 1, is used, having an eye at each of its ends to go over screw-rods *b″*, one of the rods being in the outside wall B, and the other in the floor *c*, or the same result is obtained by having the anchor extend through the wall-strip and have a head on the outside of the wall, and the eye go over the screw-rod, as seen at each end of floor *c′*, in Fig. 2. E represents the roof, also formed of narrow strips that are grooved on their edges to receive the metal tongue *b′*, and secured and held together by the screw-rods *b″*

the same way as the outside walls B. *e e* are outside strips to cover the joints between the strips that form the roof, to keep water from going into the joint above the metal tongue *b'*; and on either side of the strip *e* is a half-circle groove in the main strip of the roof, which will receive the water and conduct it down to the eave or drip at the lower end of the strips. Roofs of any form of inclination can be made in this way, and either double or single as may be desired. Where the house is large, and a considerable length of floor results, it may be necessary to strengthen it so as to prevent springing. This I accomplish by one or more suspending-rods, 2, with eyes at each end to go over the screw-rods *b''* in the floor, and then a strain-rod, 3, with an eye at its upper end going onto a center screw-rod in the floor, which will truss the floor and keep it in line without any sag. The same principle is adopted to prevent the roof from springing down, or a bearing-beam, 4, may be substituted in place of the strain-rod 3. To hold the roof securely to the body of the building, a perpendicular tie-link, 5, with an eye at each end, one eye going over screw-rod *b''* in the outside wall, and the other eye onto a screw-rod in the roof, and another angle-link, 6, with an eye on each end, one eye going over the same screw-rod in the roof, and the other end over a screw-rod in the upper floor, is used for this purpose, as seen in Fig. 2, which construction secures the roof so firmly that the links or rods must be broken before the parts can be separated. Openings for doors and windows can be had to suit, as the width of staves in the wall can be made to have a certain number equal the openings.

A building thus constructed consumes very much less material than one constructed in the ordinary way, and saves all the lathing and plastering, has no space in which rats, mice, or vermin can harbor, and is safer from fires—for if a fire occurs it must in all cases be where it can be seen and be easy to get at to extinguish—is stronger and less liable to get out of true position, as, the screw-rods traversing the walls and floors in the manner described, it is braced and held in every direction.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In the construction of the walls, partitions, roofs, or floors of houses or buildings, the combination of the grooved strips B', metal tongue *b'*, and screw-rods *b''*, substantially as and for the purpose described.

2. The combination of the floors *c*, *c'*, or *c''*, constructed as described, and resting in grooves *x* in the outer walls B, with the anchor-links 1, and screw-rods *b''*, in the manner substantially as and for the purposes described.

3. The combination of the screw-rods *b''*, in the outer walls B, and in the roof E, with the perpendicular link-anchor 5, and angle-link 6, constructed and arranged as described, to secure the roof to the walls of the building, as set forth.

MATTHIAS ROGERS.

Witnesses:

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