L. H. RUSSELL.

Improvement in Frame Buildings.

No. 132,415. Patented Oct. 22, 1872.

Fig 1.

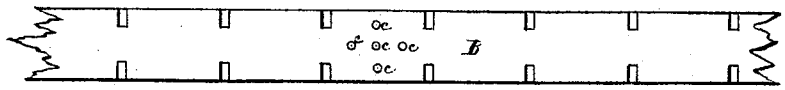
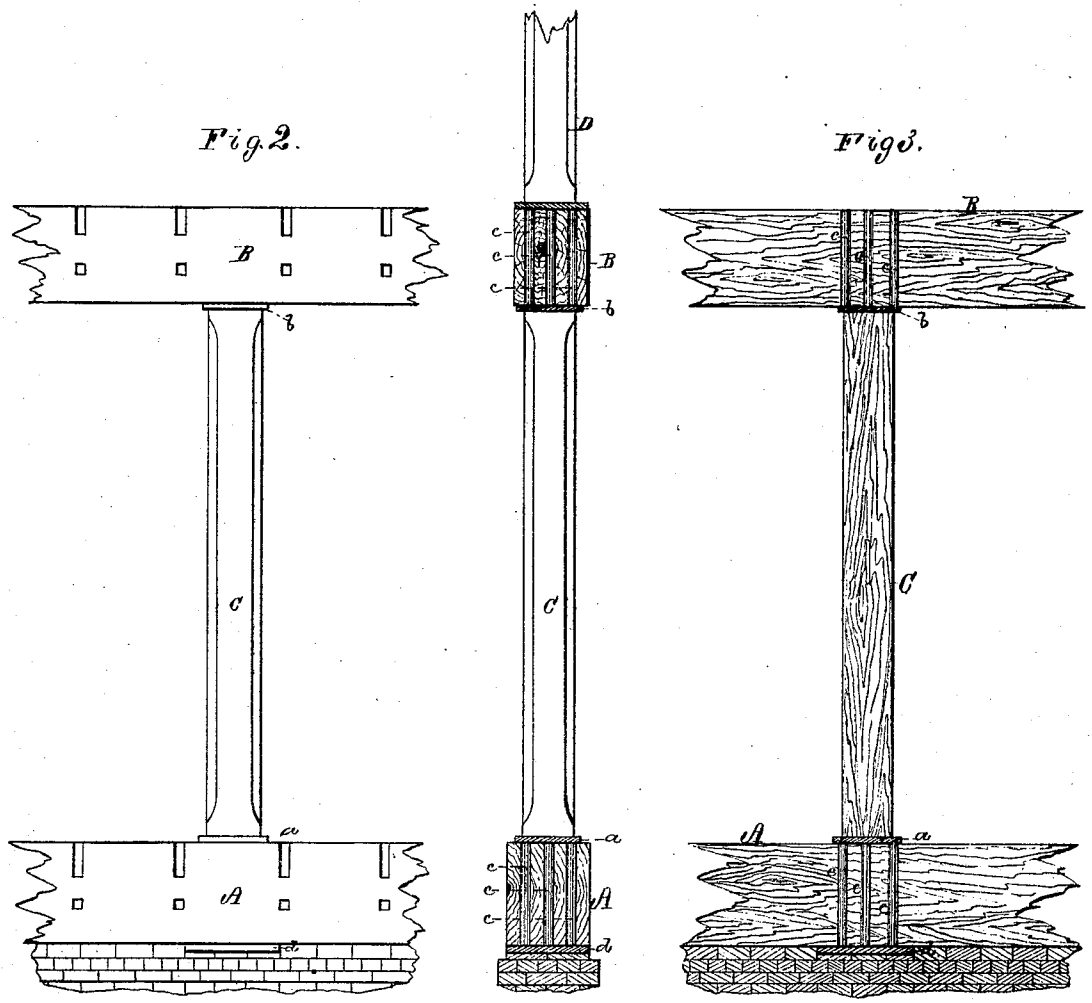


Fig 4.

Fig 2.

Fig 3.



Witnesses.

S. N. Piper

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UNITED STATES PATENT OFFICE.

LAURAMAN H. RUSSELL, OF HYDE PARK, MASSACHUSETTS.

IMPROVEMENT IN FRAME BUILDINGS.

Specification forming part of Letters Patent No. **132,415**, dated October 22, 1872.

To all whom it may concern:

Be it known that I, LAURAMAN H. RUSSELL, of Hyde Park, of the county of Norfolk and State of Massachusetts, have invented new and useful Improvement in Buildings; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawing, of which—

Figure 1 is a top view; Fig. 2 a side elevation; Fig. 3 a longitudinal section; and Fig. 4 a transverse section of the post and two flooring-beams of two stories of a house or store, with my invention applied thereto.

It is well known that, owing to vertical shrinkage of floor-timbers when upheld by posts or partitions, such floor-timbers are liable to sag more or less, and, as a consequence, cause the floors to sag and the partition to become more or less warped or cracked. In order to prevent such it has been customary to extend each post at its head through the timber, and to rest the foot of the post next above directly upon the head of the extension. This is generally attended with the necessity of making a large hole through the timber, and as a consequence the timber becomes very much weakened thereby.

In carrying out my invention the timber is much less weakened, as, instead of one hole of large diameter, I bore a series of small auger-holes down through the timber and directly over the head of the post on which the timber is to rest, and I insert in each of such holes an iron bolt having a length equal to the depth of the timber. The lower ends of these bolts rest directly upon the head of the post or upon a metallic plate or cap placed on the upper end of such post. On the upper ends of the said bolts the base of the next post is to rest, or the partition may be erected on them or a cap resting upon them.

In the drawings, A and B denote two floor-timbers, one placed over the other; one belonging to one floor and the other to the next floor above. Between these floor-timbers, and extending from one to the other of them, is a post, C, provided at its upper and lower ends with metallic caps or support-plates *a b*, arranged with respect to the floor-timbers A B, in manner as shown. The lower cap rests on the upper ends of a series of round pins or bolts, *c c c*, extending down through the lower timber and upon a rest-plate, *d*, as shown. A similar series of such bolts, *c c c*, is arranged in the upper floor-timber and so as to extend through it and rest at their lower ends upon the cap-plate of the post, all of which bolts are separate from the posts or the cap-plates thereof. The post D, erected on the second-floor timber, is to rest at its (the post's) base on the heads of the pins or upon a base-plate placed thereon. In case of vertical shrinkage of the floor-timbers the posts will be upheld by the bolts and will uphold the floor-timbers so as to prevent them from sagging and the evil consequences thereof. The great advantages of the system of bolts separate from each other and the posts, for giving support to the posts, will readily be apparent to artificers or carpenters.

I claim—

In combination with a floor-timber, its support or sustaining-posts, and a post to extend up from such timber, a series of bolts separate from each other and the post or support below the timber, and also separate from the post to extend up from the timber, and arranged substantially as described and represented.

LAURAMAN H. RUSSELL.

Witnesses:
R. H. EDDY,
J. R. SNOW.