No. 766,943. PATENTED AUG. 9, 1904.

J. O. FISHER.

CONSTRUCTION OF BUILDINGS.

APPLICATION FILED APR. 11, 1904.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 4.

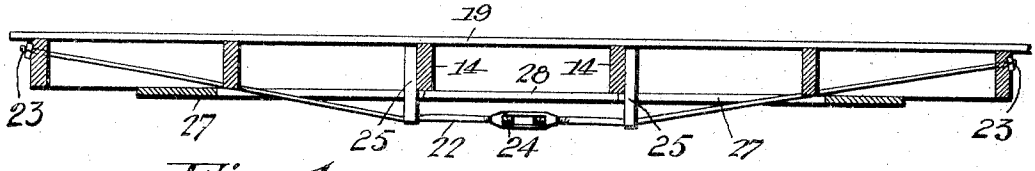
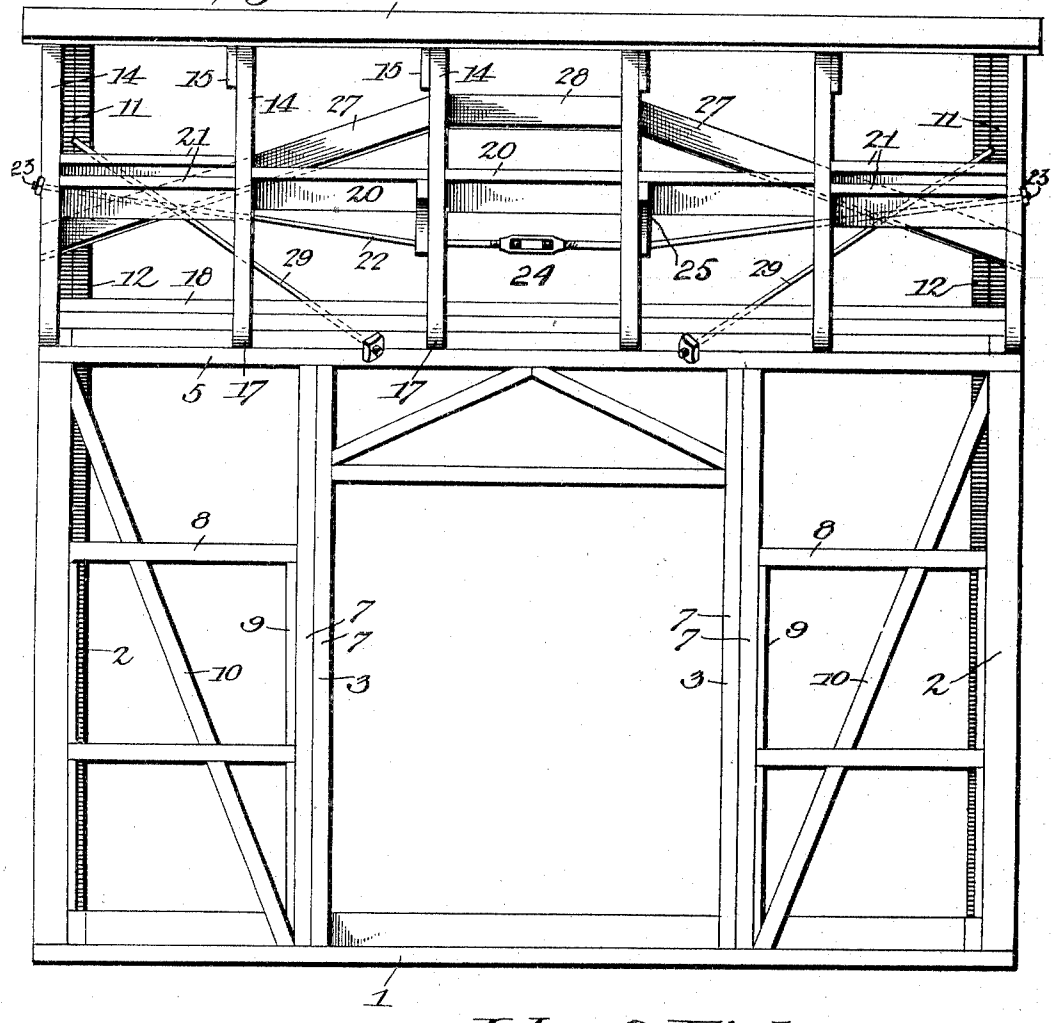


Fig. 1.



Witnesses

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Wm. Baggers

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 5.

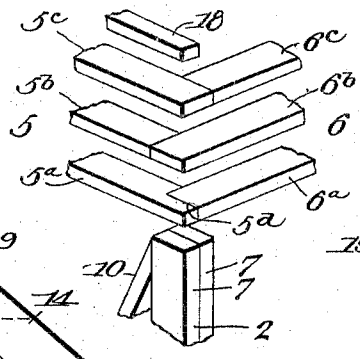


Fig. 2.

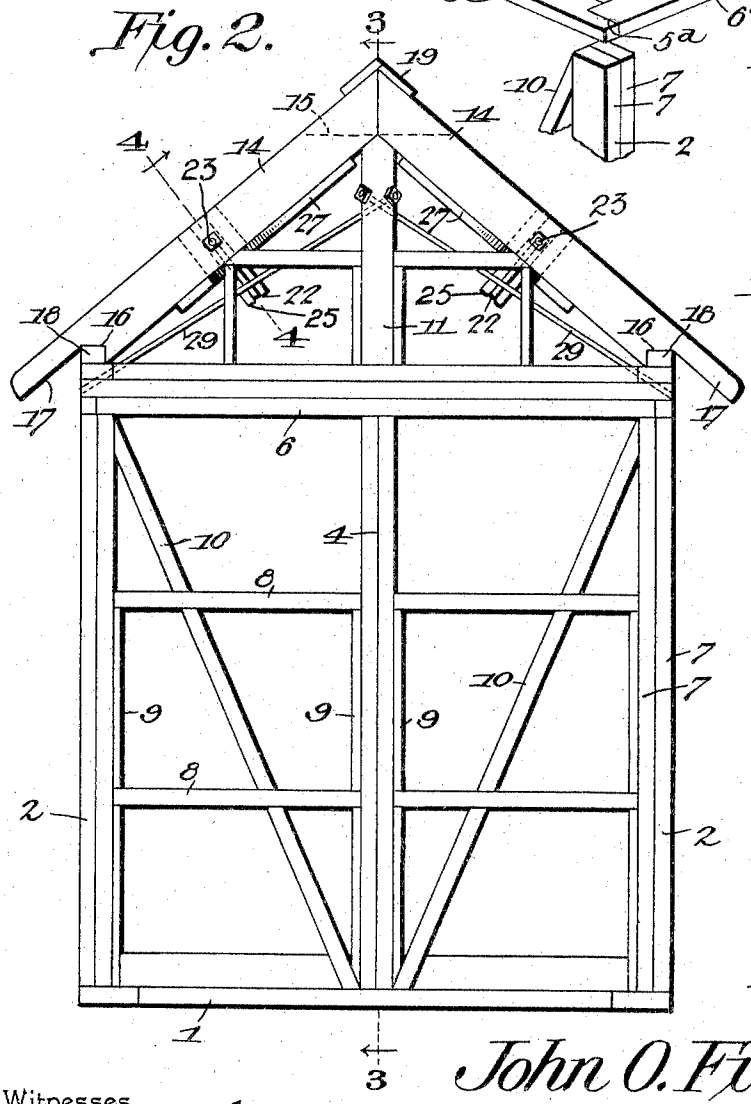
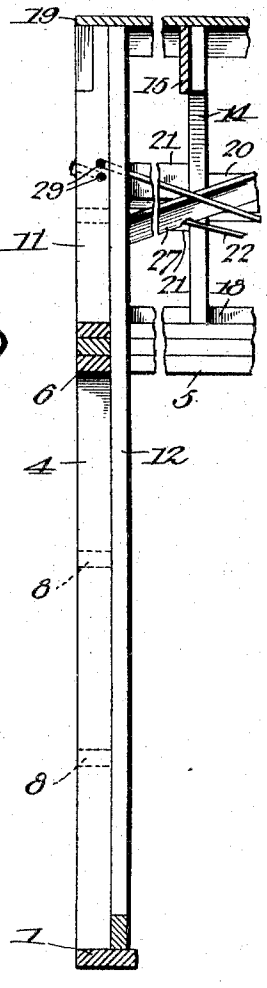


Fig. 3.



Witnesses

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No. 766,943. Patented August 9, 1904.

UNITED STATES PATENT OFFICE.

JOHN O. FISHER, OF MEXICO, INDIANA.

CONSTRUCTION OF BUILDINGS.

SPECIFICATION forming part of Letters Patent No. 766,943, dated August 9, 1904.

Application filed April 11, 1904. Serial No. 202,637. (No model.)

To all whom it may concern:

Be it known that I, JOHN O. FISHER, a citizen of the United States, residing at Mexico, in the county of Miami and State of Indiana, have invented a new and useful Construction of Buildings, of which the following is a specification.

This invention relates to the construction of buildings, such as barns, stables, and the like; and it has among its objects in the construction of buildings of the class referred to to avoid unnecessary and exorbitant expense and at the same time to provide a construction which shall be simple, durable, and thoroughly feasible and practical.

With these and other ends in view, which will readily appear as the nature of the invention becomes better understood, the same consists in the improved construction and novel combination and arrangement of parts, which will be hereinafter fully described, and particularly pointed out in the claims.

In the accompanying drawings has been illustrated a simple and preferred form of embodiment of the invention, it being understood, however, that no restriction is necessarily made to the precise structural details therein exhibited, but that the right is reserved to any changes, alterations, and modifications which come properly within the scope of the invention and which may be resorted to without departing from the spirit or sacrificing the advantages of the same.

In said drawings, Figure 1 is a front elevation of a barn-frame constructed in accordance with the principles of the invention. Fig. 2 is an end elevation of the same. Fig. 3 is a vertical sectional detail view taken on the line 3 3 in Fig. 2. Fig. 4 is a sectional detail view taken on the line 4 4 in Fig. 2. Fig. 5 is a perspective detail view illustrating the preferred construction of the wall-plates and end plates.

Corresponding parts in the several figures are indicated by similar numerals of reference.

In carrying out my invention the sills 1 are provided to support the posts or uprights of the frame. In the drawings have been illustrated corner-posts 2, door-posts 3, and center posts 4, the posts 2 3 serving to support the wall-plates or rafter-plates 5 and the posts 2 4 serving to support the end plates or tie-beams 6. When good sound timber is available, the posts may be made each of a single piece; but in order to lessen the cost of construction each of the posts may be made up of planks of suitable dimensions, as indicated at 7 7, said planks being suitably connected and well spiked together. It is obvious that any desired number of posts may be employed to support the plates 5 and 6 between the posts 2 3 and 2 4, respectively, according to the size of the building that is to be constructed, said posts being suitably spaced apart; but it has not been deemed necessary to show such additional posts in the accompanying drawings in order that the latter may be executed on a sufficiently large scale to be well understood. The individual posts are connected and spaced apart by means of horizontal braces 8, which are not mortised into the posts, but are supported and spaced apart by means of strips 9 of suitable dimensions nailed or spiked to the posts. The construction not being weakened by mortises, I find that lighter material may be advantageously used than would otherwise be the case. Inclined or obliquely-disposed braces 10 10 are also employed in the interspaces between the posts, said oblique braces being framed together with the horizontal braces 8.

The end plates 6 support directly above the center posts 4 the king-posts 11. Planks 12 are disposed interiorly in contact with the posts 4 and 11 and plates 6 and are securely spiked thereto, thus practically forming end posts, which extend from the sills upwardly to the gable of the roof.

The rafters 14 abut upon each other at their upper ends and are connected in the usual manner by means of braces 15. The lower ends of the rafters are recessed in their under sides to form shoulders 16 and overhanging ends 17, the shoulders 16 abutting upon flanges 18, which are spiked to or otherwise suitably secured upon the wall-plates, thereby avoiding the weakening of the latter by mortising. Ridge-beams 19 are secured in the usual manner upon the abutting upper ends of the rafters. The rafters are connected and spaced

apart by means of joists 20, of which any suitable number may be used, although in the accompanying drawings only a single joist has been used between each pair of rafters, except at the ends of the roof, where two joists 21 21 have been employed, said joists being spaced a short distance apart for the purpose of accommodating the ends of a truss 22, which extends through the end rafters, and are provided with securing means, such as nuts 23. The inner ends of the trusses are connected in the usual manner by a turnbuckle 24, and struts 25 are employed to space the trusses from the rafters. To support the under sides of the rafters, I employ in addition to the truss 22 a pair of diagonally-disposed planks 27, extending from the corners of the building in the direction of the center of the roof and spaced apart by short planks 28, upon which the ends of the planks 27 are abutted. The latter planks are, furthermore, supported and reinforced by brace-rods 29, connecting the king-posts with the wall-plates.

By the construction herein described a building of practically any desired size may be framed in a simple, inexpensive, and durable manner. No supports will be needed for the roof, except as herein described, the trusses and braces herein described being sufficient to firmly support roofs for very large buildings, as has been practically demonstrated. The general construction is simple and inexpensive, a great saving being effected in the labor usually required for the purpose of mortising and framing the parts of the building together, while the strength resulting from my improved construction is not only unimpaired, but really greater than that which is attained when methods of construction now in vogue are adhered to.

It has been stated that each of the several posts or uprights employed in the improved structure which is the subject of my invention may, if desired, be composed of separate planks 7 7, nailed or spiked together. In like manner it is my preference to use composite plates such as illustrated in detail in Fig. 5 of the drawings, by reference to which it will be seen that each of the plates 5 and 6 will be composed of three members 5^a, 5^b, and 5^c and 6^a, 6^b, and 6^c. The bottom member 5^a is provided at the end thereof with a notch 5^d for the reception of the end of the bottom member 6^a, thus causing both bottom members to have direct support upon the corner-posts or uprights. Of the superimposed members the member 6^b will be extended over the head of the corner-post and the member 5^b will terminate just short of the latter, the member 5^c being caused to overlap the end of the member 6^b, the member 6^c terminating in contact with the edge of the member 5^c. By this simple construction ample strength and great durability will be afforded, the several members of each plate being securely spiked and connected together.

Having thus described my invention, I claim—

1. In a building-frame, a sill, corner-posts, a center post, a tie-beam, a king-post supported upon the latter above the center post, and an integral reinforcing-plank extending from the sill to the ridge and connected with the center post, the tie-plate and the king-post.

2. A plurality of rafters, joists spacing the same apart, auxiliary joists between the end rafters and those adjacent thereto, a truss extending through the end rafters and partly accommodated between the joists spacing the latter from the proximate rafters, a turnbuckle upon said truss, and struts interposed between the latter and the rafters.

3. A plurality of rafters, joists spacing said rafters apart, a truss extending through the end rafters and having a turnbuckle, struts interposed between said truss and intermediate rafters and reinforcing-planks secured to the under sides of the rafters and extending from the corners in the direction of the center of the roof and abutting upon the ends of a spacing-plank.

4. A building-frame including sills, upright posts, wall-plates having flanges near their upper outer edges, tie-beams and king-posts, a plurality of rafters having recesses engaging the flanges of the wall-plates, spacing means between said rafters, a truss extending through the end rafters and having a turnbuckle, struts between said truss and intermediate rafters, reinforcing-planks extending from the corners in the direction of the center of the roof, spacing members abutting upon the ends of said reinforcing-planks, and brace-rods extending below and in contact with the reinforcing-planks and connecting the king-posts with the wall-plates.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JOHN O. FISHER.

Witnesses:
T. H. IRELAND,
W. F. COX.