

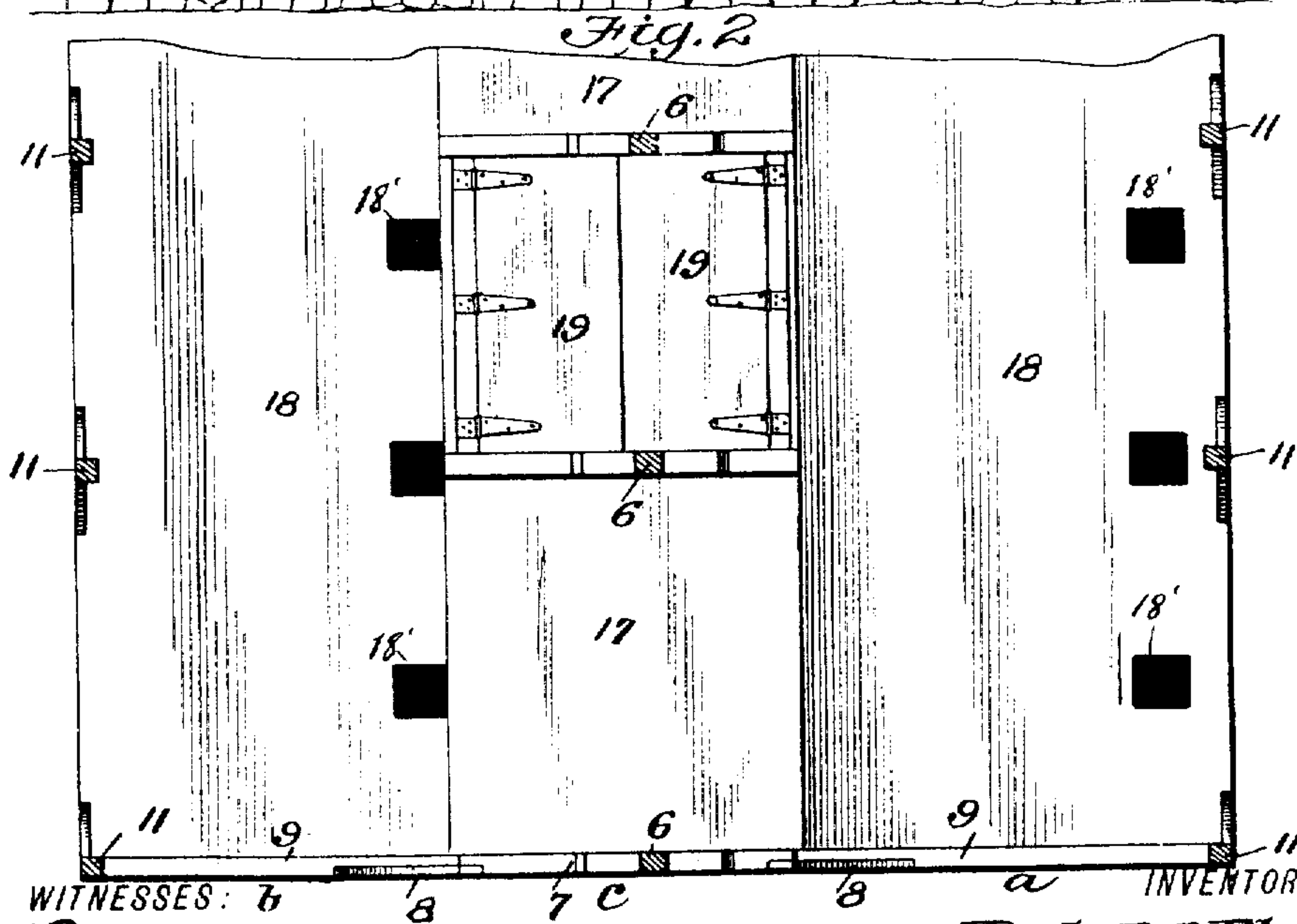
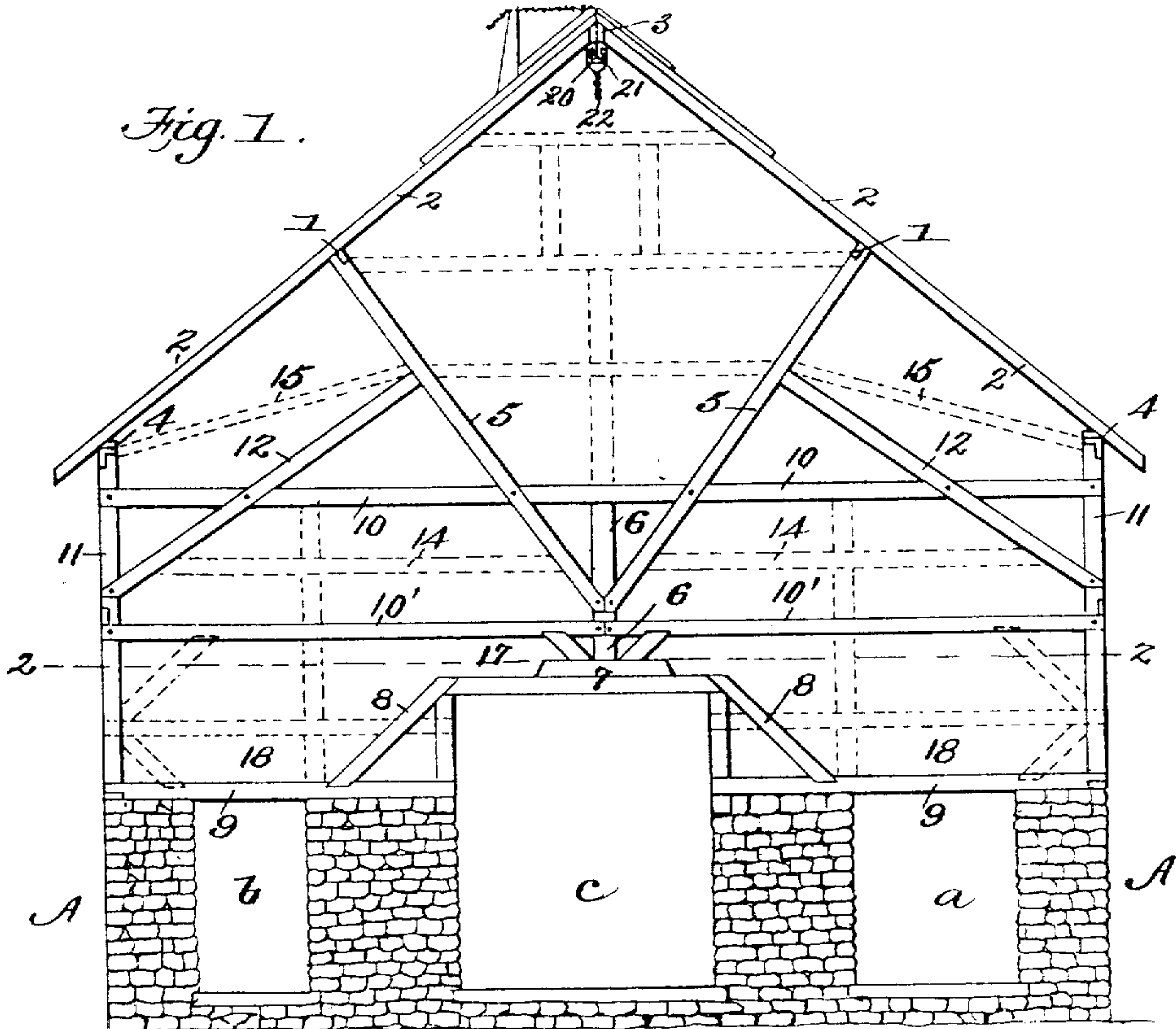
(No Model.)

2 Sheets—Sheet 1.

R. S. MCPHEETERS.
BARN FRAME.

No. 582,543.

Patented May 11, 1897.



WITNESSES: *M. P. Blondel*
Amos W. Hart

INVENTOR
R. S. McPheeters.
BY *Munn & Co.*

ATTORNEYS.

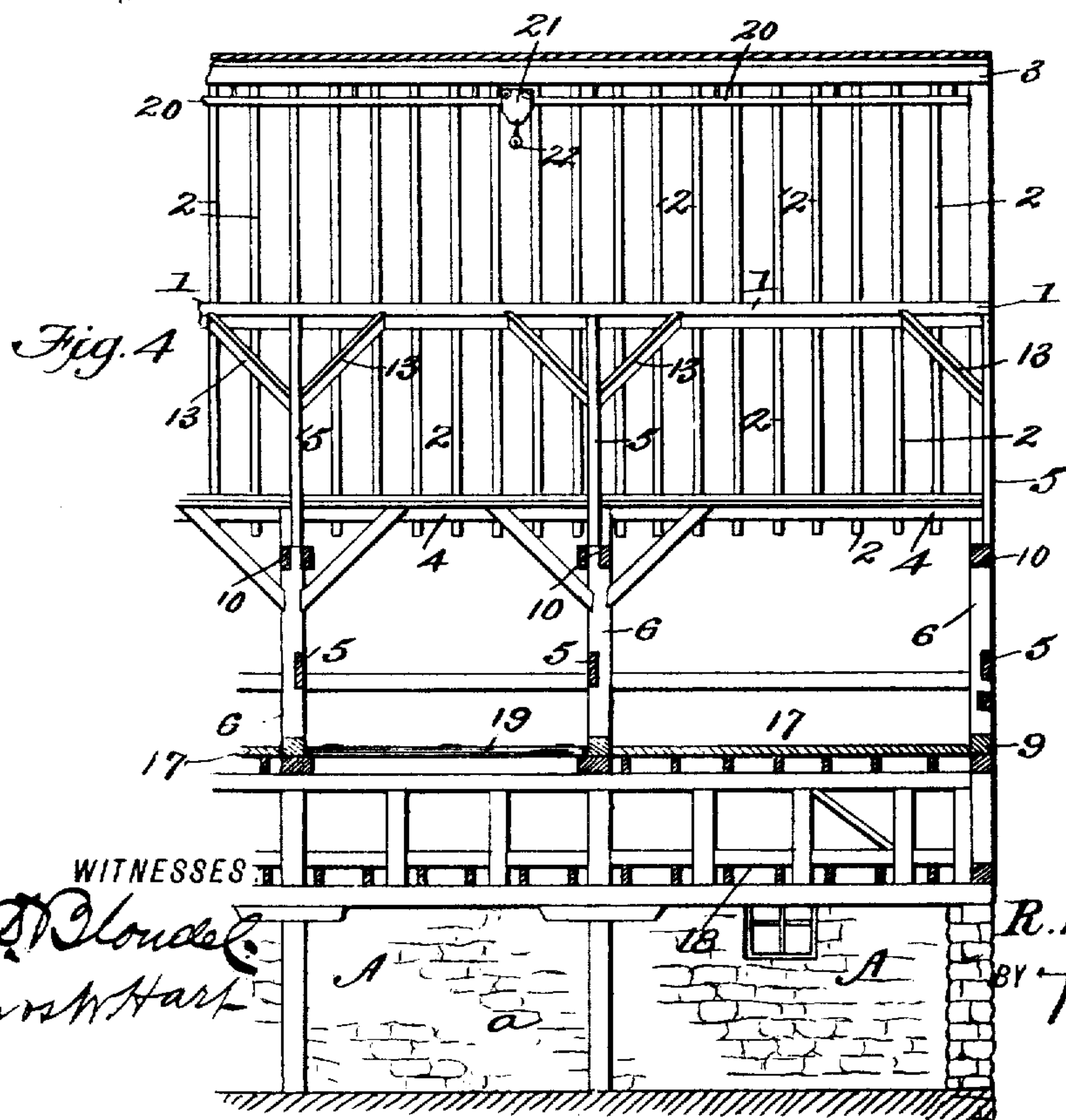
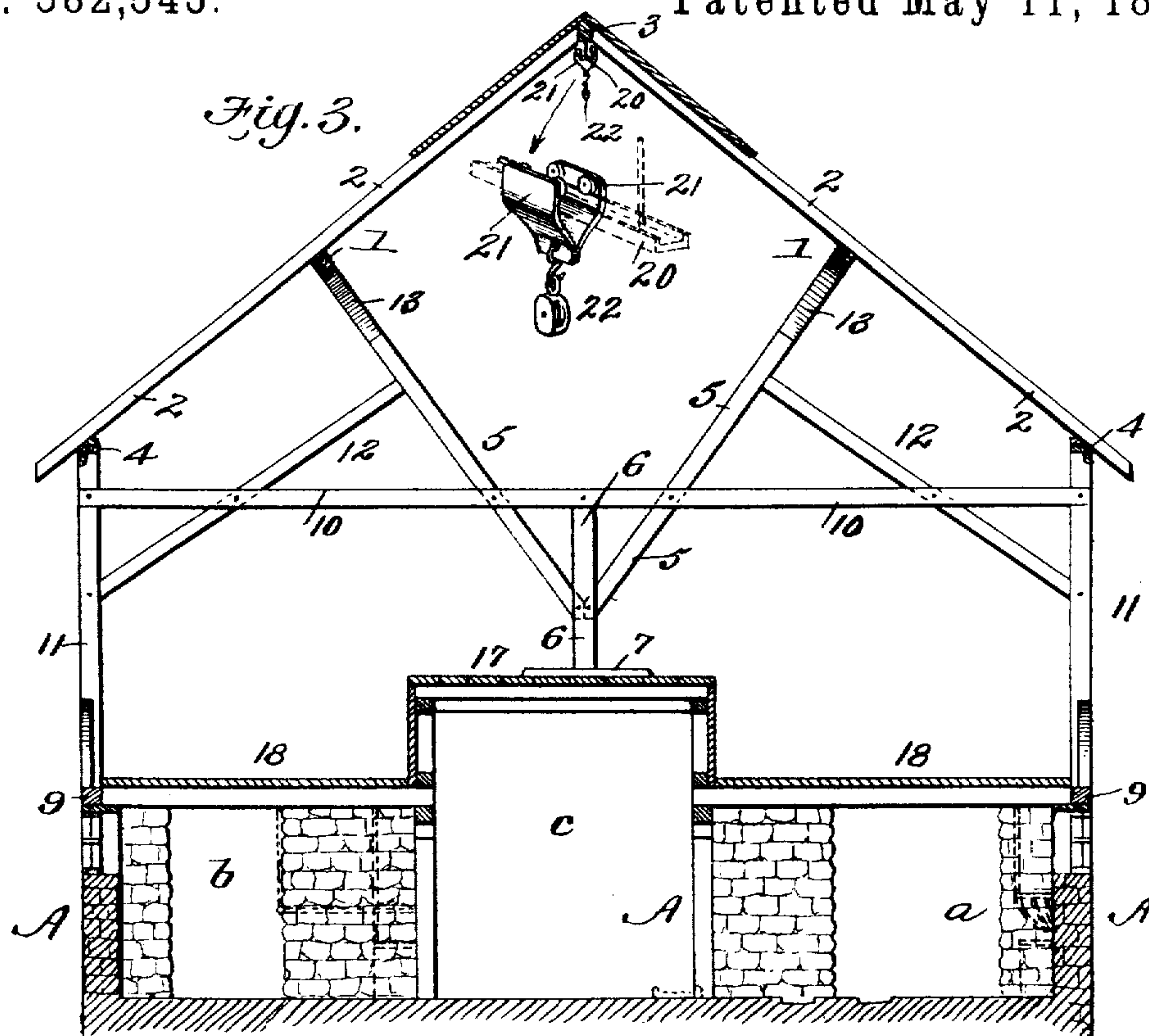
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2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

ROBERT SAMUEL MCPHEETERS, OF SAND CREEK, MINNESOTA.

BARN-FRAME.

SPECIFICATION forming part of Letters Patent No. 582,543, dated May 11, 1897.

Application filed June 19, 1896. Serial No. 596,224. (No model.)

To all whom it may concern:

Be it known that I, ROBERT SAMUEL MCPHEETERS, of Sand Creek, in the county of Scott and State of Minnesota, have invented a new and useful Improvement in Barn-Frames, of which the following is a specification.

My improved barn-frame is designed to combine simplicity, economy, and strength in the highest degree and be also specially adapted for convenience and expedition in unloading hay, &c., and feeding the same to stock.

The details of construction and arrangement of parts are as hereinafter described, and shown in accompanying drawings, two sheets, in which—

Figure 1 is an end view of the barn-frame and its foundation. Fig. 2 is a horizontal section of a portion of the same on line 2 2 of Fig. 1. Fig. 3, Sheet 2, is a vertical section of the frame and foundation. Fig. 4 is a longitudinal section of a portion of the same.

The main or body frame of the barn is rectangular and set upon a stone or other permanent foundation A, whose walls inclose the basement or lower story, wherein I locate a cattle-stall *a*, a horse-stall *b*, and an intermediate driveway or alley *c*, such stalls and driveway being arranged parallel and extending longitudinally of the basement A and having at each end openings which will in practice be provided with sliding doors. (Not shown.) The purlins or horizontal beams 1, Fig. 1, that support the rafters 2 at points equidistant from the ridge-pole 3 and plates 4, are supported by long braces 5, which converge at the lower end and are attached to a vertical center post 6, that seats on beams extending across the top of the driveway *c* and having braces 8 connected with the sills 9. The said posts 6 connect at their upper ends with the horizontal cross-beams 10, that brace and tie together the side posts 11, supporting the plates 4. A brace 12 is arranged at a right angle to each of the long purlin-braces and extends outwardly down to the center of such side posts 11. It will be seen that both the purlin-braces 5 and the supplemental braces 12 cross the beams 10 and form acute angles therewith.

As shown in Fig. 1, braces 13 connect the purlins 1 and their braces 5. The several parts of the frame above mentioned are gained

or mortised and pinned together, thus producing a frame which has maximum rigidity and strength, yet equal lightness and simplicity, so that it may be constructed very economically.

At the gable ends of the frame, Fig. 1, I provide an additional brace and tie beam 10', which is arranged below and parallel to the main one, 10, and connects only the lower portions of the center post 6 and side posts 11.

A supplemental brace 14, Fig. 1, may be arranged between the purlin-braces 5 and their side braces 12 and another one, 15, between the purlin-braces 5 and plates 4 and others, 16, between the purlin-braces themselves for the purpose of additionally strengthening the ends of the frame and providing for supports and points of attachment for the board sheathing or covering. The said braces 14, 15, and 16 are shown in dotted lines.

As shown best in Fig. 3, the horizontal top 17 of the central driveway or alley *c* is raised above the tops 18 of the horse and cattle stalls *a b*, which constitute the bases of two mows, and are provided, Fig. 2, with openings 18' for feeding hay or other fodder to the stock.

In the middle of the driveway-top 17 I provide a hatch or opening having hinged trap-doors 19, and directly beneath and parallel to the ridge-pole 3 I suspend a rail or track 20, on which runs a carriage 21, having a sling or tackle-and-block attachment 22.

It will be seen that a load of hay having been hauled to the center of the driveway *c*, the hatch-doors 19 opened, and the sling 22 brought to a point directly over the hatch the hay may be conveniently and quickly elevated through the hatch and deposited at either end of the barn, whence it may be conveniently removed into one of the adjacent mows.

As will be noted from inspection of Fig. 3, the arrangement of the purlin-braces 5 provides amply for passage between them of any quantity of hay the sling 22 is capable of carrying. It will be further noted that the sling 22 may be operated not only until the mows are full, but also all the space between them save that directly over the hatch.

I do not restrict myself to the particular form of hatch-door shown.

What I claim is—

1. The improved barn-frame, comprising the usual side posts, horizontal plates, and inclined rafters, the purlins 1, arranged in the middle of the latter, the purlin-braces 5, extending downward and inward, the vertical center posts 6, on which the braces converge, the supplemental inclined braces 12, connecting said side posts and purlin-braces, and the horizontal brace and tie beams 10, connecting and gained into opposite side posts, center post, purlin-braces and supplemental braces, as shown and described.

2. The combination with the basement, having a central driveway c, provided with a hatch

as specified, of the frame having inclined rafters and a connecting ridge-pole, the purlins, and inwardly-inclined or converging braces 5, for the latter, center posts on which the braces are set, a track arranged directly beneath the ridge-pole, a carriage running thereon, and a hay-sling suspended from said carriage, for elevating hay through the hatch and conveying it between opposite purlin-braces toward either end of the barn, as shown and described.

ROBERT SAMUEL McPHEETERS.

Witnesses:

JACOB KRAUTKREMER,
JOHN DOLS.