No. 844,179. PATENTED FEB. 12, 1907.

H. NIESEN.

METAL BUILDING.

APPLICATION FILED OCT. 24, 1906.

Fig. 1.

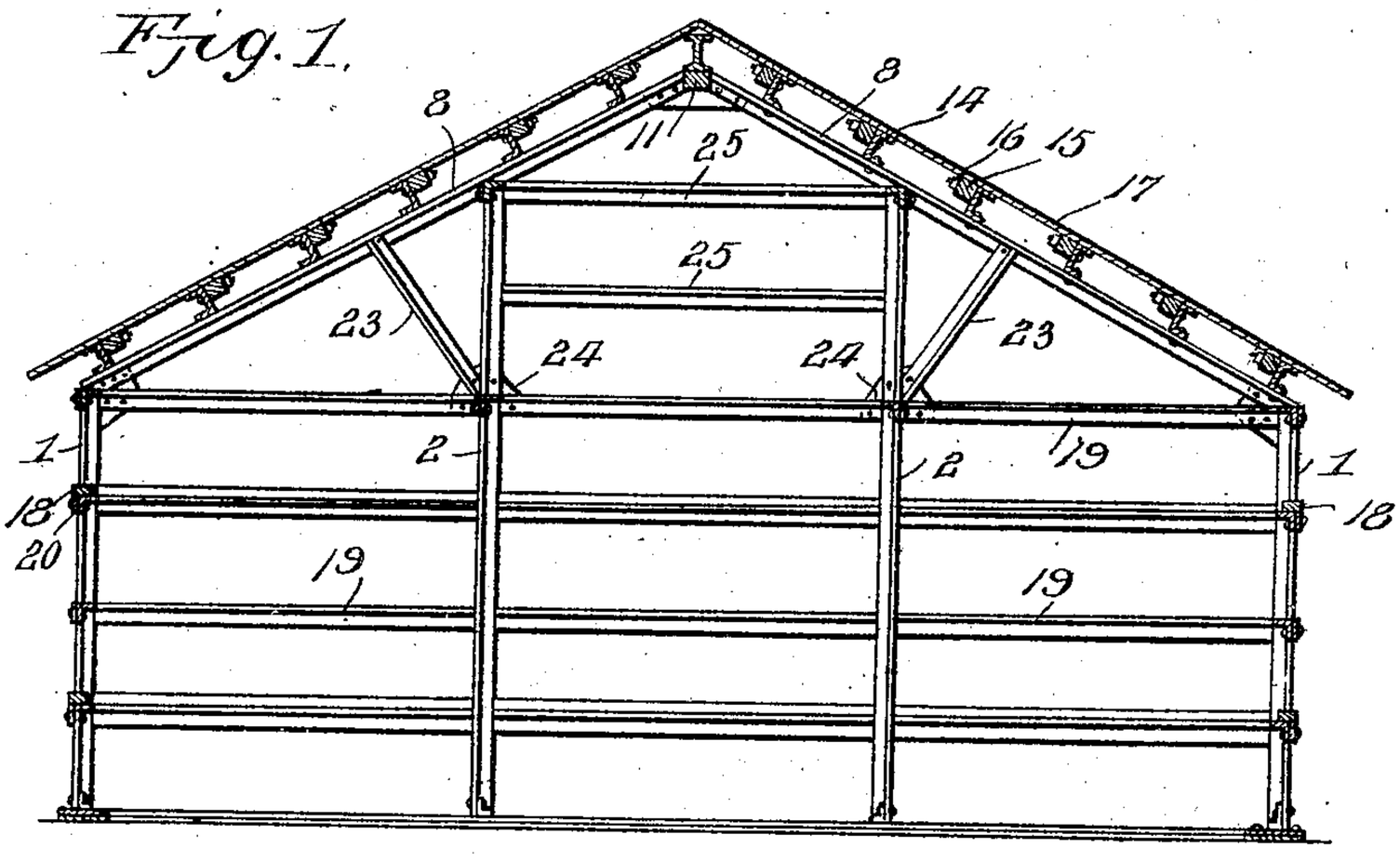


Fig. 2.

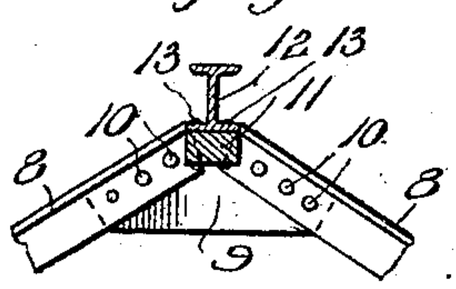


Fig. 3.

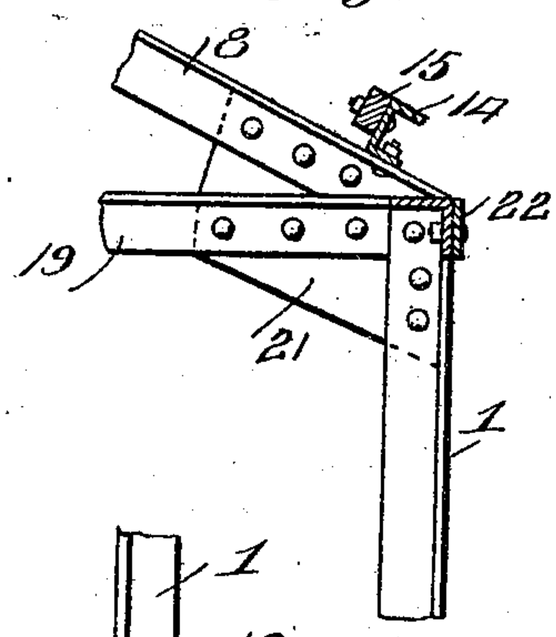
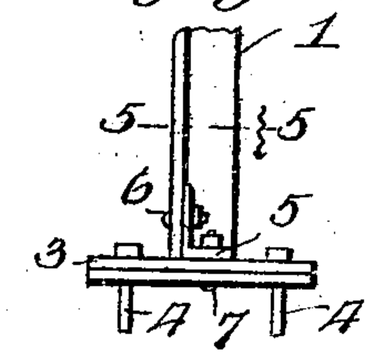


Fig. 4.



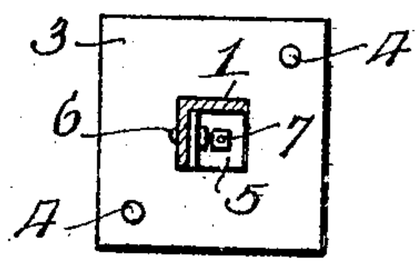
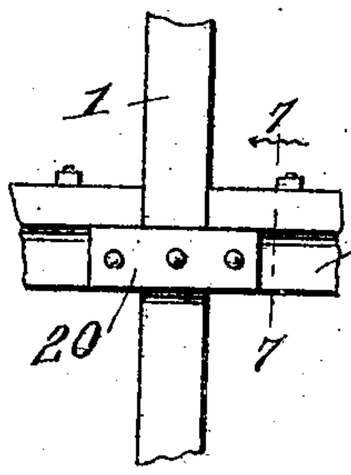


Fig. 5

Fig. 6.



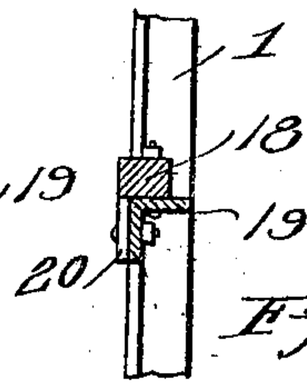


Fig. 7.

Witnesses

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METAL BUILDING.

No. 844,179. Specification of Letters Patent. Patented Feb. 12, 1907.

Application filed October 24, 1906. Serial No. 340,392.

To all whom it may concern:

Be it known that I, HUBERT NIESEN, a citizen of the United States of America, residing at Marinette, in the county of Marinette and State of Wisconsin, have invented new and useful Improvements in Metal Buildings, of which the following is a specification.

This invention relates to metal buildings, and is more particularly adapted to the construction of barns; and one of the principal objects of the same is to provide a substantially fireproof metal barn of simple construction.

Another object of my invention is to provide a barn or stable made of up angle-iron, channel-beams, I-beams, and metal-joint plates and braces.

Still another object of the invention is to provide means for securing the roof and sides to the structure by means of nailing-strips secured to the angle-beams and channel-iron for securing the corrugated or plane metal roof and sides to the barn by nailing the same to said strip.

The objects and advantages above referred to may be attained by means of the construction illustrated in the accompanying drawings, in which—

Figure 1 is a transverse vertical section through a barn made in accordance with my invention. Fig. 2 is a detail section through the I-beam ridge of the roof. Fig. 3 is a detail sectional view showing the manner of securing the lower ends of the purlin to the angle-iron upright and girder. Fig. 4 is a detail side view of the lower end of one of the uprights and showing the manner of securing the same to the base-plates. Fig. 5 is a sectional view on the line 5 5, Fig. 4, looking in the direction indicated by the arrow. Fig. 6 is a detail side elevation of one of the side uprights and showing the manner of securing one of the girders thereto. Fig. 7 is a sectional detail on the line 7 7, Fig. 6, looking in the direction indicated by the arrow.

Referring to the drawings for a more particular description of the invention, the numeral 1 designates the side supporting posts or uprights, which are composed of angle-irons, and 2 are the center supports, also composed of angle-iron beams, said uprights being supported upon base-plates 3, secured by bolts 4 to the floor of the building. An angle-iron brace 5 is secured by bolts 6 and 7 to the plates 3 and to the uprights 1, as shown more particularly in Figs. 4 and 5. The purlins 8 are at their meeting ends secured together by a plate 9, bolted to the purlins, as at 10, and secured between said meeting ends is a ridge-strip 11, upon which the I-beam ridge 12 is bolted by through-bolts 13.

Secured at intervals to the purlins 8 are channel-irons 14, and said channel-irons are provided with nailing-strips 15, secured thereto at the upper edge thereof by means of bolts 16. These nailing-strips are provided for the purpose of nailing or otherwise securing the roof-plates 17 thereto by means of nails or other fastenings. Nailing-strips 18 are secured to the angle-iron girders 19 in a similar manner and for the purpose of securing the metal sheathing thereto, a plate 20 extending across the upright 1 to secure the same to the girders 19, as shown more particularly in Figs. 6 and 7. The lower ends of the purlins 8 are secured to the girders 19 and to the channel-iron uprights 1 by means of plates 21 and plates 22, as shown more particularly in Fig. 3. Diagonal braces 23 extend from the uprights 2 at the junction of said uprights with the girders 19 to the purlins 8, to which they are bolted, and a plate 24 is bolted to the girders, the uprights 2, and the diagonal braces 23, as shown in Fig. 1 of the drawings. Cross-braces 25 extend from one of the uprights 2 to the other and assist in supporting the roof of the building.

From the foregoing it will be obvious that a barn, warehouse, or livery-stable constructed in accordance with my invention for containing hay, grain, or stock will be substantially fireproof, can be quickly constructed, and that either wooden or metal sheathing and roof may be quickly applied thereto, and that the barn thus constructed will be substantial and durable.

Having thus described the invention, what I claim is—

1. A metal building comprising upright posts, purlins secured by plates to said posts, angle-iron girders secured to said purlins, and wooden nailing-strips bolted to said girders to provide means for securing the roof thereto.

2. A metal building comprising angle-iron

uprights and corner-posts, angle-iron purlins, an I-beam ridge secured to the inner ends of said purlins by means of plates bolted thereto, wooden nailing-strips secured to channel-beams supported upon said purlins, and nailing-strips secured to said upright posts, for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

HUBERT NIESEN.

Witnesses:
L. J. EVANS,
R. M. SAUVÉ.