

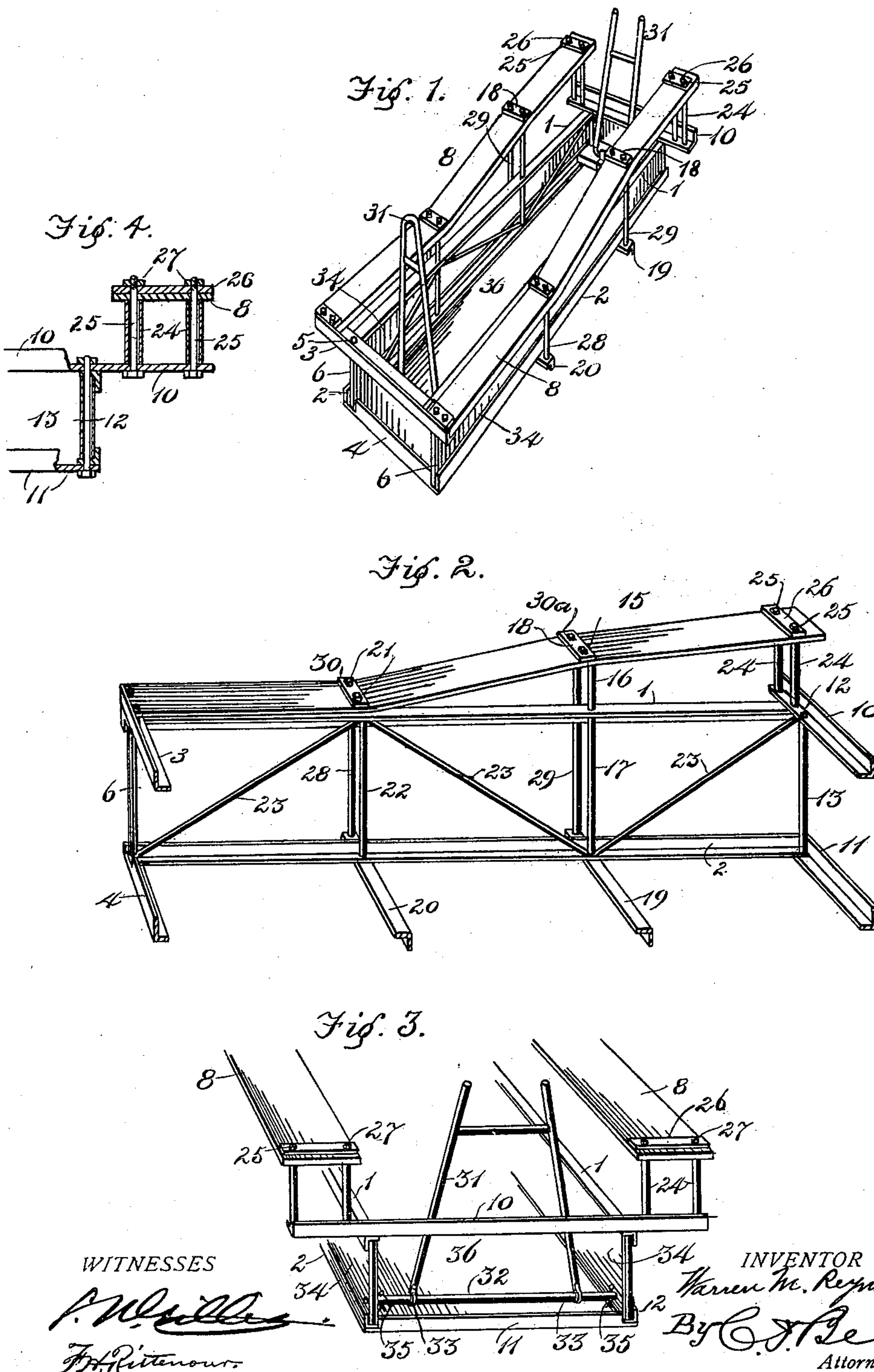
No. 621,708.

Patented Mar. 21, 1899.

W. M. REYNOLDS.  
HAY FRAME.

(Application filed Jan. 8, 1898. Renewed Feb. 15, 1899.)

(No Model.)





# UNITED STATES PATENT OFFICE.

WARREN MAGRUDER REYNOLDS, OF GOSHEN, KENTUCKY.

## HAY-FRAME.

SPECIFICATION forming part of Letters Patent No. 621,708, dated March 21, 1899.

Application filed January 8, 1898. Renewed February 15, 1899. Serial No. 705,586. (No model.)

*To all whom it may concern:*

Be it known that I, WARREN MAGRUDER REYNOLDS, a citizen of the United States, residing at Goshen, in the county of Oldham and State of Kentucky, have invented certain new and useful Improvements in Hay-Frames, of which the following is a specification.

This invention relates to a hay-frame for wagon-bodies, and particularly to a frame composed wholly of gas-pipe and angle-iron.

The object of the invention is to provide a frame capable of being put together and taken apart, so that in the former position a strong rigid frame is produced and in the latter position each part is separate and complete in itself.

A further object of the invention is to provide a hay-frame composed of pipe and angle-iron connected together by a series of vertical bolts or rods, so that no special tools or other implements except an ordinary wrench are required to connect and disconnect the several parts, which in the former position form a simple, cheap, and durable frame and in the latter position are capable of ready handling and rendered exceedingly convenient for packing and transportation.

The invention consists in the novel construction and arrangement of the several parts.

In the accompanying drawings, forming part of this application, Figure 1 is a perspective view of the frame with the bottom and side boards in place. Fig. 2 is a perspective view of one side of the frame, showing the transverse angle-irons in section with the bottom and side boards removed. Fig. 3 is a perspective view of the rear end of the frame, showing the boards held by the angle-irons. Fig. 4 is a vertical section on the line  $x x$  in Fig. 3.

The same numeral references denote the same parts throughout the several figures of the drawings.

The horizontal angle-irons, of which there are four, an upper one, 1, upon each side and a like lower one, 2, on each side, directly underneath the top irons 1 and running parallel with them. At the front corners of the frame these irons 1 and 2 and the transverse top and bottom angle-irons 3 and 4, respectively, are

secured together by bolts or rods 5, extending through sleeves 6, formed of ordinary gas-pipe. The said sleeves separate the top and bottom irons and hold them rigidly apart. The iron 3 is projected upon each side of the frame to admit of one end of the wheel-fender 8 being secured thereto. The same connection is made between the irons 1 and 2 and the rear angle-irons 10 and 11 by means of the bolts 12 and sleeves 13. The irons 10 are extended at the sides and support sleeves 24, which sleeves support the rear end of the fender 8, the latter and the said sleeves being held by bolts 25, having suitable nuts 27 and passed through the said extensions, the sleeves, the fender, and a plate 26 on top of the fender. Bolts 15 are passed through pipe-sleeves 16 and 17, plates 18, the fender, and the irons 1 and 2, and an intermediate angle-iron 19 to hold the latter in place and to support and brace the parts together. A like transverse angle-iron 20 is held to the irons 2 by shorter bolts 21, having pipe-sleeves 22, which separate the irons 1 and 2 at this point. The transverse angle-irons 19 and 20 are projected to each side to form a support for pipe-sleeves 28 and 29, which are held to support the wheel-fender 8—bolts 30 and 30<sup>a</sup>.

The end ladders or hay supports 31 are formed of gas-pipe and secured to a pivot-rod 32 by means of straps 33. The said rod extends through the side boards 34 and is held by keys 35.

It is obvious that the side boards 34 and the floor-boards 36 are securely held by the angle-irons, and when the bolts are removed the frame is free to be taken apart, but will stand in such free position supported by the several sleeves until the parts are separated.

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

1. In a hay-frame, the combination of the horizontal angle-irons, the transverse angle-irons, the pipe-sleeves at the intersection of said irons, and the bolts extending through the sleeves and through all of the said irons, and provided with suitable nuts, as set forth.

2. In a hay-frame, the combination of the horizontal angle-irons, the transverse angle-irons, the pipes and bolts at the intersection

of said irons, certain of the transverse irons having projections, and the bolts and nuts for holding the pipes and the fenders in place, as set forth.

- 5 3. In a hay-frame, the combination of the horizontal angle-irons, and the transverse angle-irons adapted to hold the side and floor boards of the frame, the pipes at the intersection of said irons, the wheel-fenders, the  
10 fender-plates, the bolts passing through said irons, pipes, fenders and plates, certain of

said transverse irons having projections, pipes seated on the projections, and the bolts passing through said plates, fenders, pipes and projections, and having suitable nuts, 15 substantially as set forth.

In witness whereof I hereunto set my hand in the presence of two witnesses.

WARREN MAGRUDER REYNOLDS.

Witnesses:

R. J. WOOLFOLK,  
JOHN C. TEERCE.