

H. M. SHELDON.
 END GATE FOR WAGONS.
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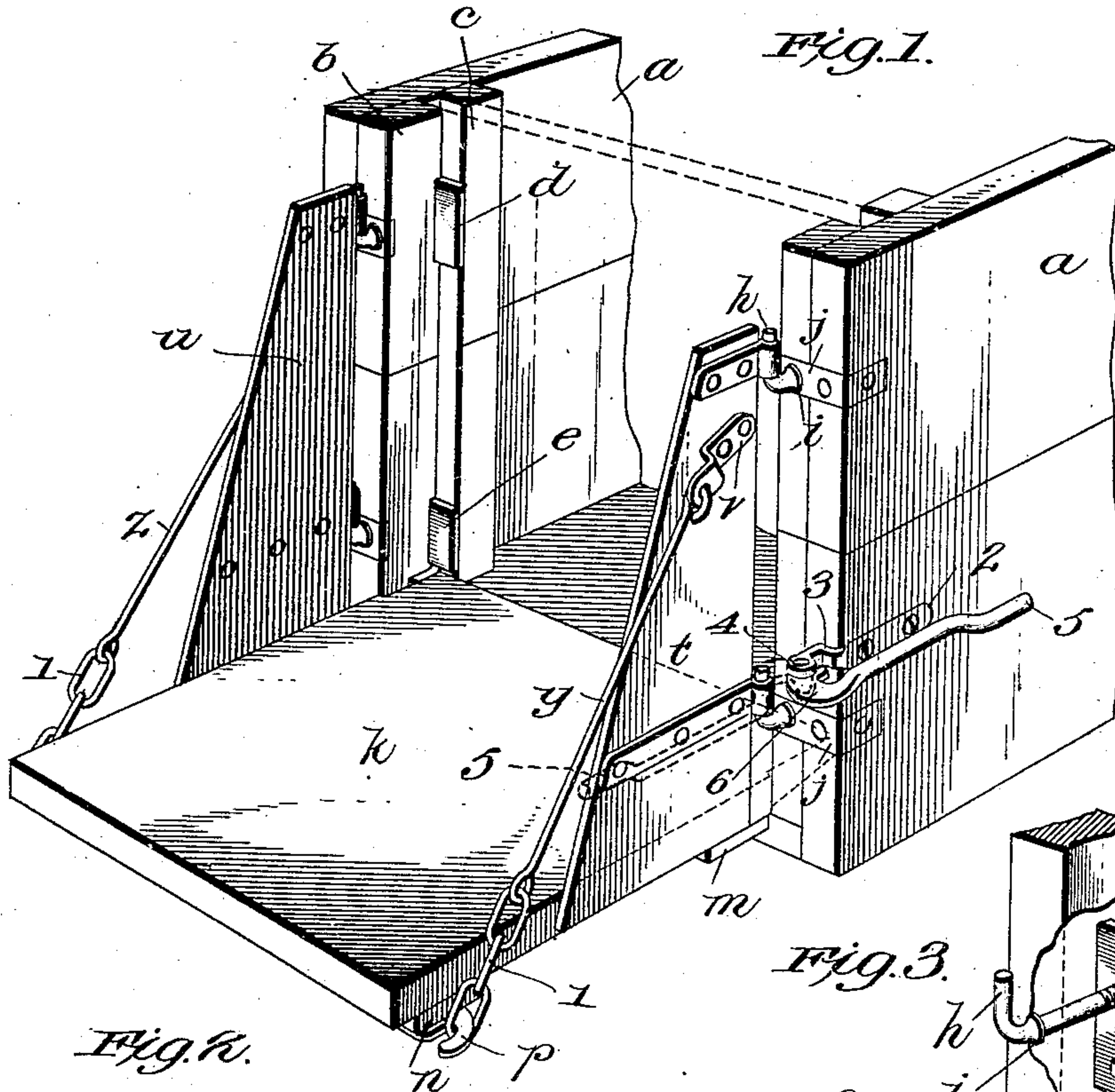


Fig. 3.

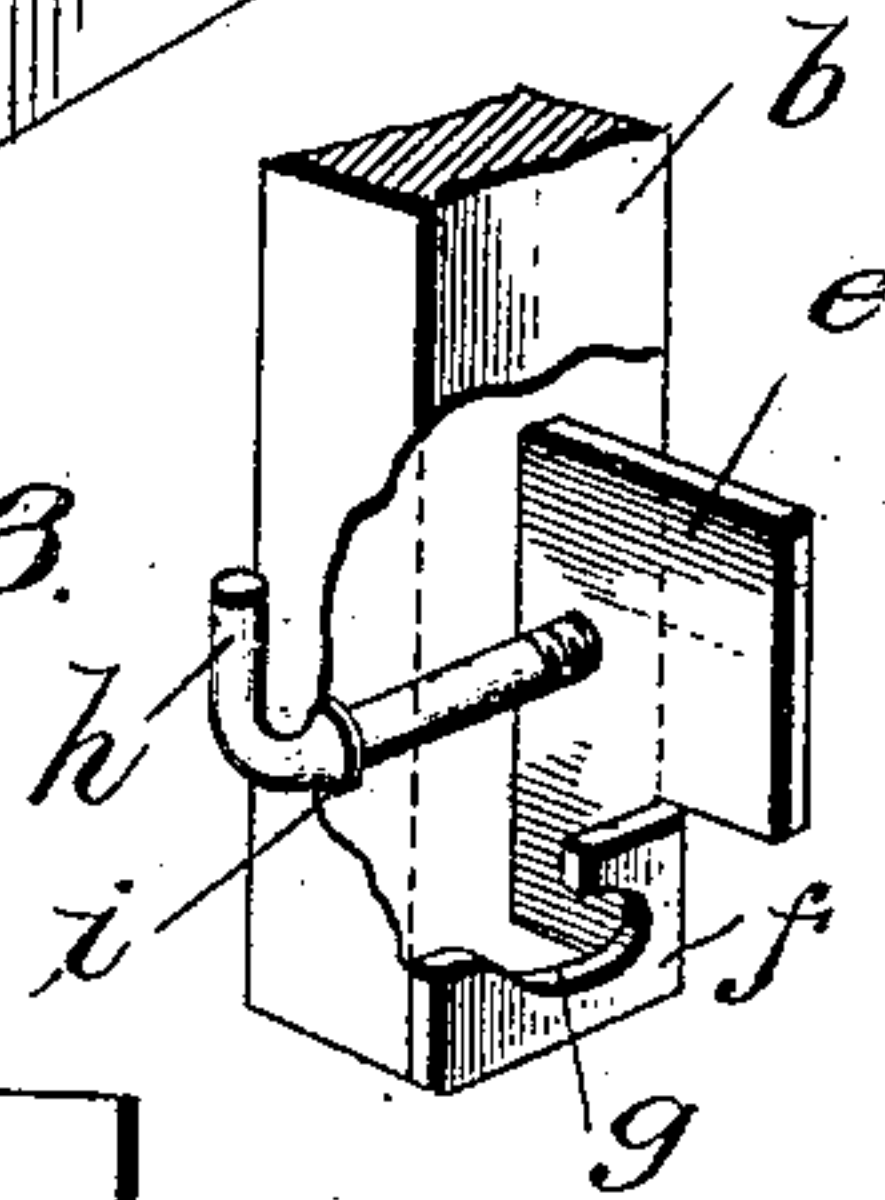


Fig. 2.

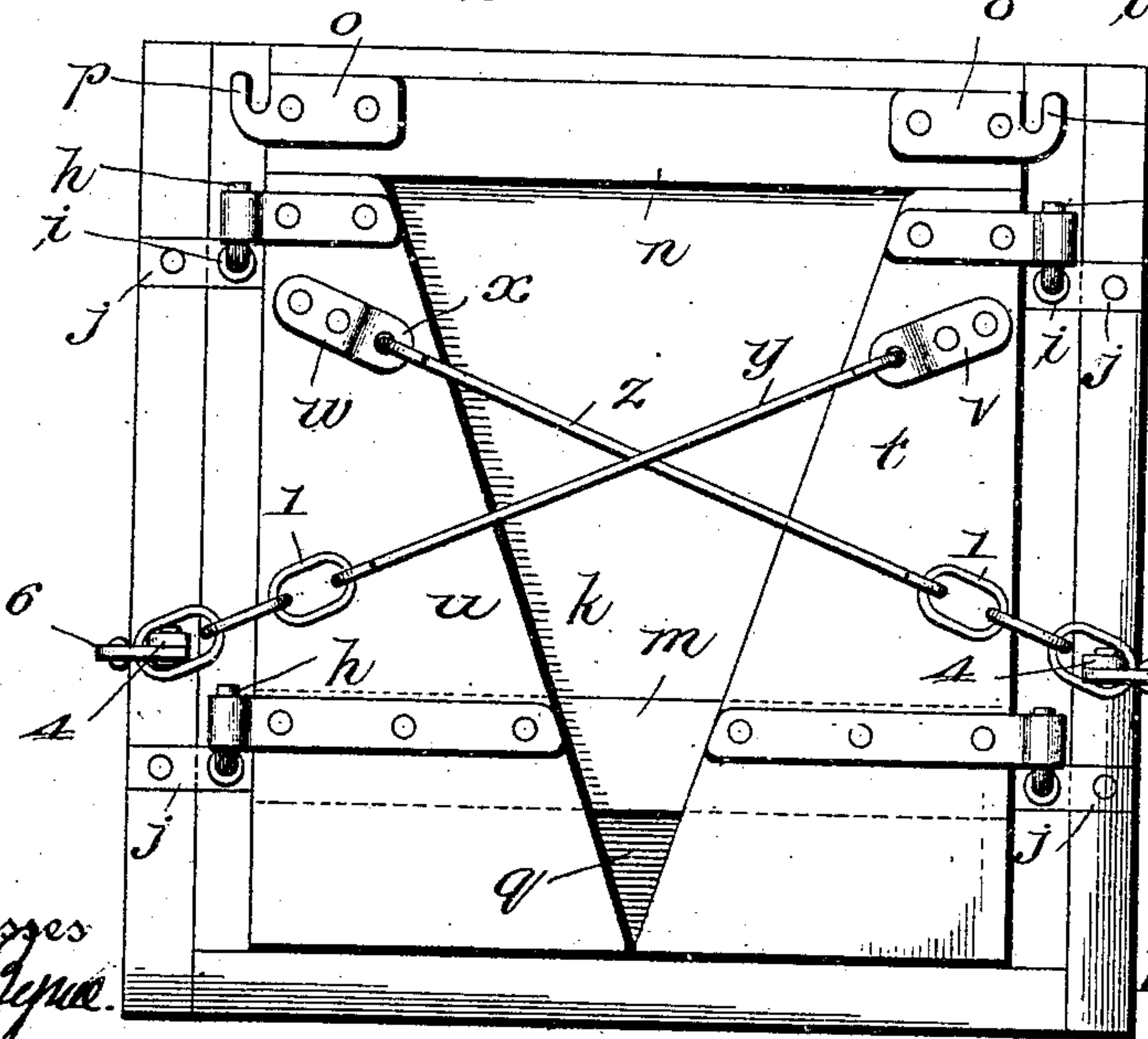
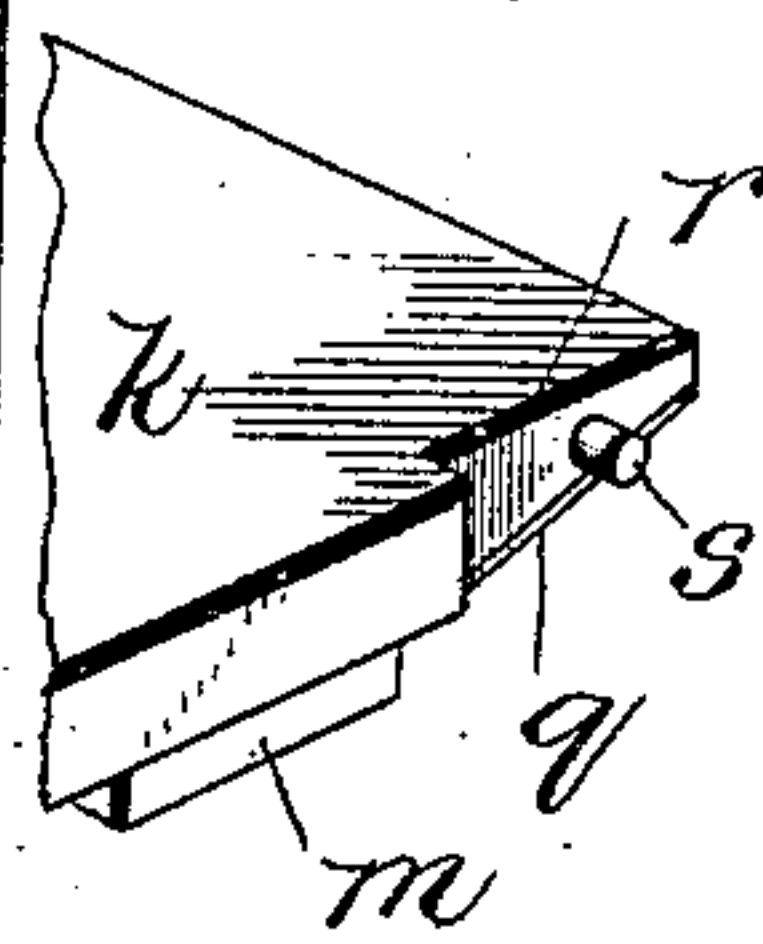


Fig. 4



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UNITED STATES PATENT OFFICE.

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END-GATE FOR WAGONS.

No. 908,339.

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To all whom it may concern:

Be it known that I, HENRY M. SHELDON, a citizen of the United States, residing at Webster City, in the county of Hamilton and State of Iowa, have invented certain new and useful Improvements in End-Gates for Wagons; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in end gates for wagons, and the object of my invention is to provide an end gate which will facilitate the handling of grain and live stock, which can be attached and detached in a very short time without any considerable trouble, and which is absolutely grain tight.

With this object in view my invention consists in the construction and combinations of parts as hereinafter described and claimed.

In the accompanying drawings—Figure 1 is a perspective view of the rear of a wagon body showing my invention applied thereto, with the gate open. Fig. 2 is an end view of the wagon body with the gate closed. Fig. 3 is a detail showing the attachment of one of the hinges, and Fig. 4 is a perspective view of one of the lower ends of said gate.

a represents an ordinary wagon body provided at its rear end with two vertically arranged braces or stops *b* and *c* between which a board (shown in dotted lines in Fig. 1) may be slipped if desired.

To the inner side of the upright *b* are attached metal stops *d* which limit the inward motion of the gate. Other stop brackets *e* are also provided which are of the peculiar shape shown in Fig. 3, namely, the upper part is flat and attached to the inside of one of the uprights *b*, and the lower part is bent over, as shown at *f*, and is provided with a cut away portion *g* for receiving one of the pivot pins on the gate. The stop bracket *e* is made of a single piece of metal.

h represents one of the hinges, of which there are four, and which are passed through holes in the uprights *b* and which screw into the stop pieces *d* and *e* respectively, as best shown in Fig. 3. These hinges are provided with enlargements, such as *i*, to prevent their working too far into the uprights. Braces *j* are secured to the wagon body and

to the uprights *b* and furnish bearings for the enlargements *i* of the hinges *h*. The hinges may be secured to or may be integral with these brace pieces if desired.

k represents the end gate which is preferably made of wood, and is provided on the outside with cross pieces *m* and *n*. To the ends of the upper cross brace *n* are attached pieces of metal, such as *o*, terminating in hooks *p*. The lower part of the outside of the gate is beveled, as shown at *q*, and cut away, as shown at *r*, and is also provided with pins *s* which fit into the cut away portions *g* of the parts *e*.

Mounted on the hinges *h* outside of the main gate are two supplementary gates *t* and *u* usually made of metal. These gates are cut away from the top downwardly and are adapted to fit along the edges of the gate proper when the latter is opened, as shown in Fig. 1.

The means for fastening the outer gates *u* and *t* in position will next be described. On these gates are fastened brackets *v* and *w* each having a projection, such as *x*, struck up from the main portion of the bracket. These struck up portions are perforated and in them are mounted long rods *y* and *z* having hooked ends, and to the lower ends of these rods are attached a series of chain links, such as 1. The arrangement might be reversed if desired, and the chain links attached to the brackets *v* and *w*.

Attached to the ends of the wagon body are brackets 2 each of which is provided with a bent portion 3 terminating in a perforated end 4. In this perforated end is mounted one end of a locking bar 5 of the shape shown in Fig. 1, and having a bent end 6 which is adapted to hold one of the chain links 1 around the end 3 of the securing bracket, as shown in Fig. 1. The construction on both sides of the wagon body and gate are precisely similar.

The operation of raising and lowering the gate is as follows:—The parts being in the position shown in Fig. 1, the chain links are unhitched from the hooks *p* and the gate *k* is folded up into a vertical position, resting against the parts *d* and *e*. The auxiliary gates *t* and *u* are then folded over against the main gate, as shown in Fig. 2. The locking rods 5 are then swung outwardly and the rods *y* and *z* extended across the gates *t* and *u* and the end chain link attached to these rods is

slipped over the end of the locking rods 5. These rods are then brought back to the position shown in Fig. 1, when the whole device is tightly locked. In opening the gate these 5 steps are performed in reverse order.

Various advantages arise from the construction described above. The handling of grain and live stock is greatly facilitated. When in the position shown in Fig. 1, the 10 gate *k* acts as a shovel board. The gate is made in three sections, all of which can be attached and detached without the expenditure of any considerable effort or time. The gate when locked is absolutely grain tight. 15 When it is desired to unload stock, the wagon can be backed up directly to the chute and the end gate removed while the wagon is in that position. In unloading grain the locks can be loosened and the end gate will fall out 20 or may be removed either entirely or into the position shown in Fig. 1. The tension of the rods and securing devices in the end gate is the same whether the wagon is loaded or empty, and no jarring will cause the loosening of the locks. 25

Having now described my invention what I claim is:—

1. The combination of a wagon body, a main end gate detachably carried thereby, 30 hinged supplemental outer gates, and means for locking said supplemental gates and thereby said main gate including flexible members carried by said supplemental gates and locking rods and brackets carried by said wagon 35 body, substantially as described.

2. The combination of a wagon body, a main gate removably and pivotally mounted thereon, supplemental gates hinged to said wagon body, and means for locking said 40 supplemental gates and thereby said main gate including swinging members provided with links, said members being loosely mounted on said supplemental gates and locking rods and brackets carried by said 45 wagon body, substantially as described.

3. The combination of a wagon body, gates hinged thereon, and means for locking said gates, said locking means including brackets fastened to said wagon body, a lock- 50 ing rod pivotally mounted on each bracket and having a cut away portion near the pivoted end thereof and flexible members loosely

attached to said gates, said members consisting of rods and links, one end of each of said members being loosely attached to one 55 of said gates and the other end being adapted to slip over one end of one of said locking rods, substantially as described.

4. The combination of a wagon body, gates hinged thereon, a locking bracket for 60 each gate fastened to said wagon body, a locking rod pivotally mounted in each of said brackets and having a cut away portion near the pivoted end thereof, brackets secured to said gates and swinging members each com- 65 posed of a rod and chain links, said members being adapted to be swung across said gates and to be secured at one end to the brackets on said gates and to have the other end passed around one of said locking rods, there- 70 by engaging said rod and one of the brackets on the wagon body, substantially as described.

5. The combination of a wagon body, a main gate pivotally mounted thereon and 75 provided with hooks, supplemental gates hinged to said body, cooperating locking means carried by said supplemental gates and said wagon body for locking said supplemental gates and thereby said main gate in 80 position, said locking means including flexible swinging members provided with perforated ends adapted to engage the hooks on the main gate when the latter is swung down, substantially as described. 85

6. The combination of a wagon body, up- rights secured thereto, stop pieces on the inside of said uprights, hinges passing through said uprights and into said stop 90 pieces, a main end gate adapted to swing against said stop pieces, supplemental end gates mounted outside of said main gate on said hinges, and locking devices carried by said supplemental gates and the wagon body 95 for locking said supplemental gates and thereby said main gate in a closed position, substantially as described.

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

HENRY M. SHELDON.

Witnesses:

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GEO. S. BARNER.