

(No Model.)

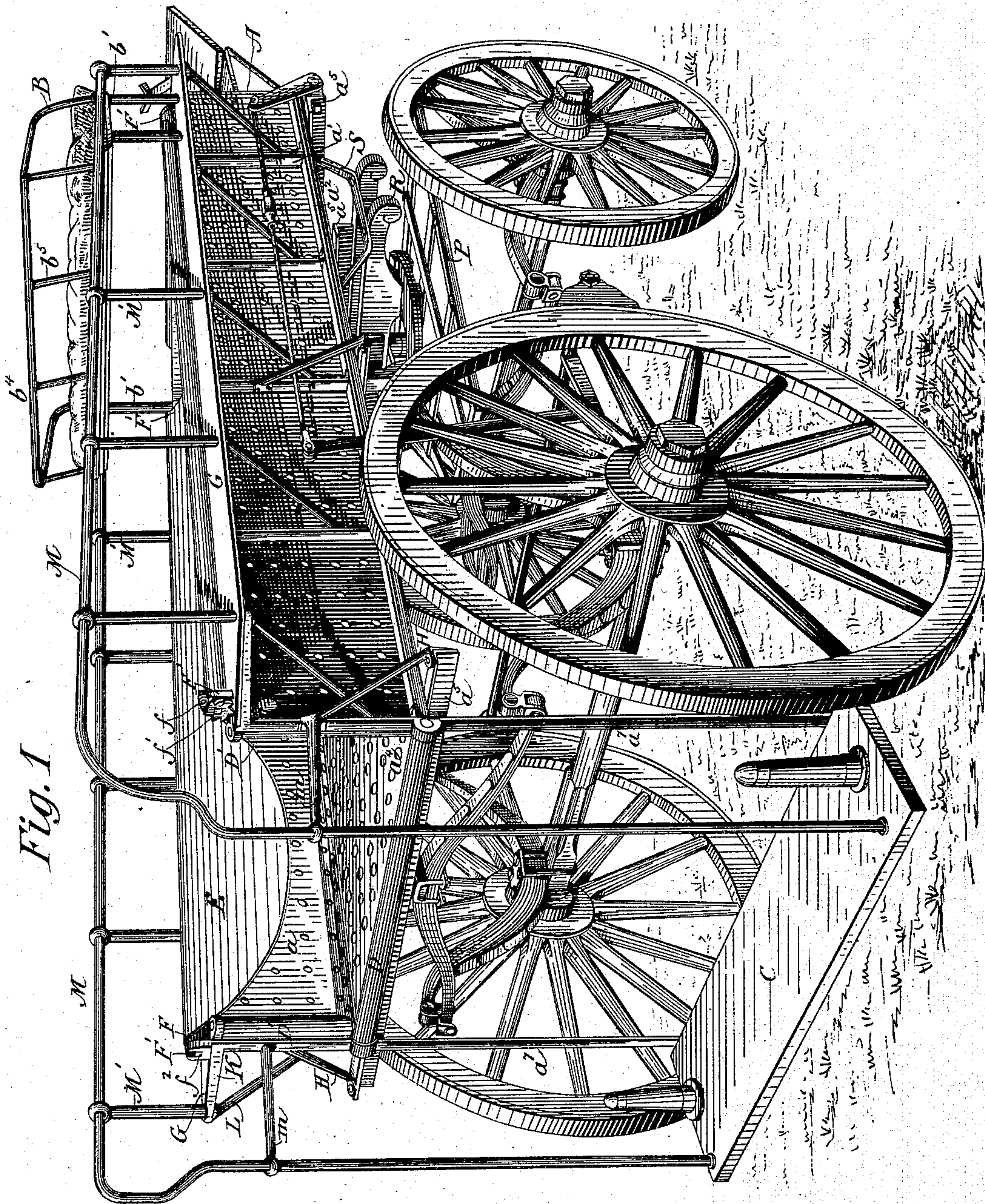
2 Sheets—Sheet 1.

E. F. STECK.

HOSE WAGON.

No. 325,990.

Patented Sept. 8, 1885.



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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2

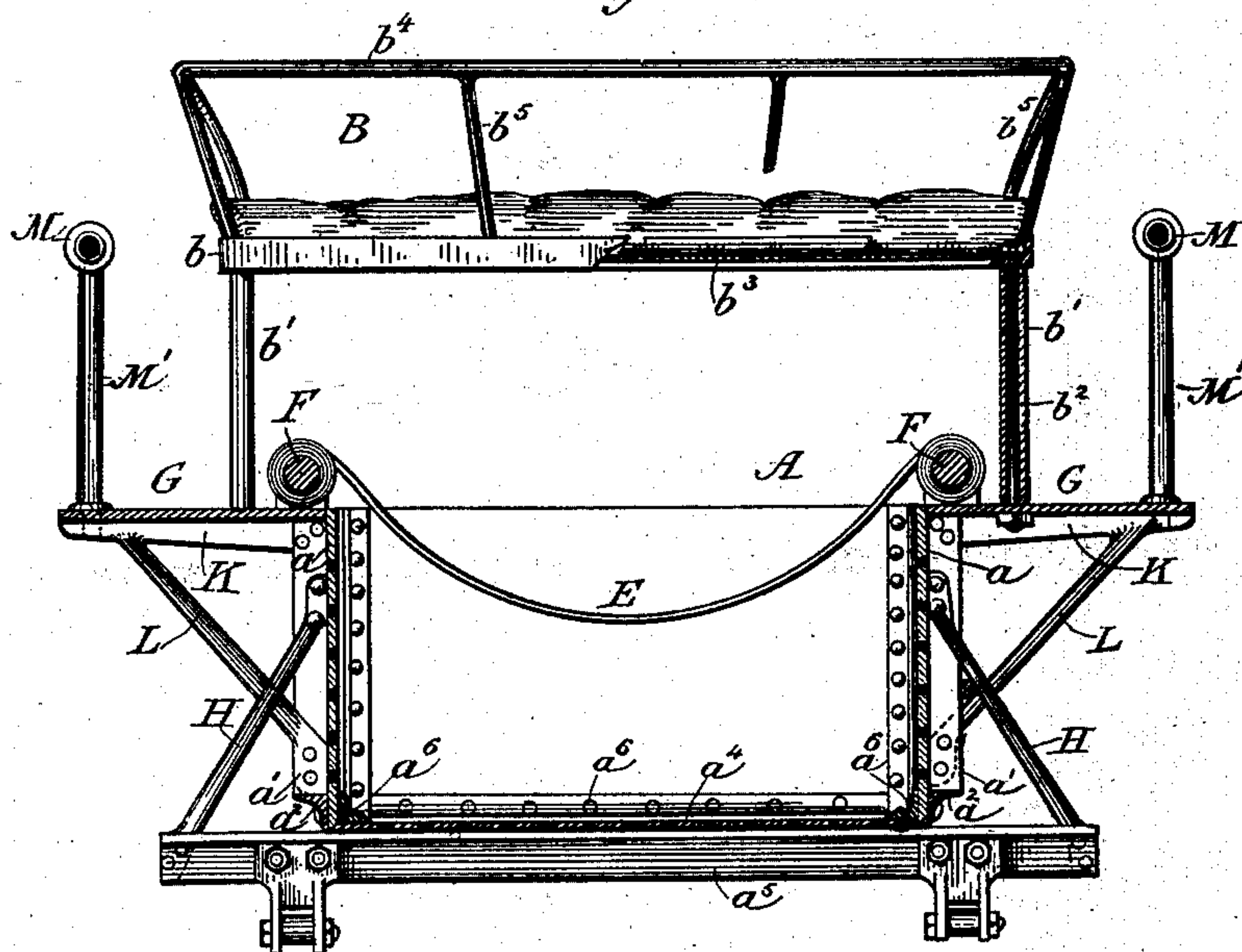


Fig. 3

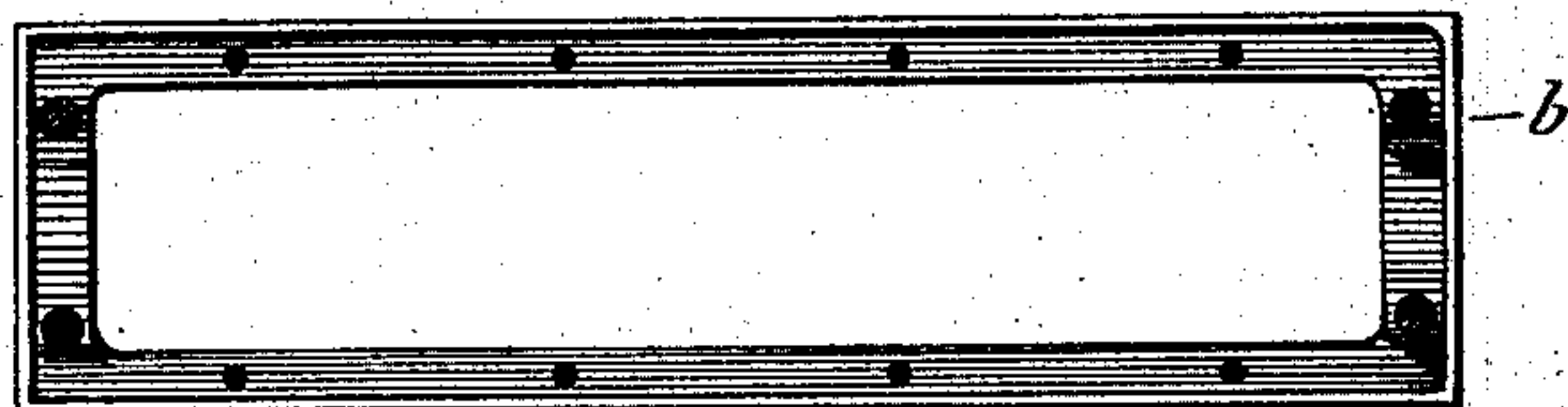
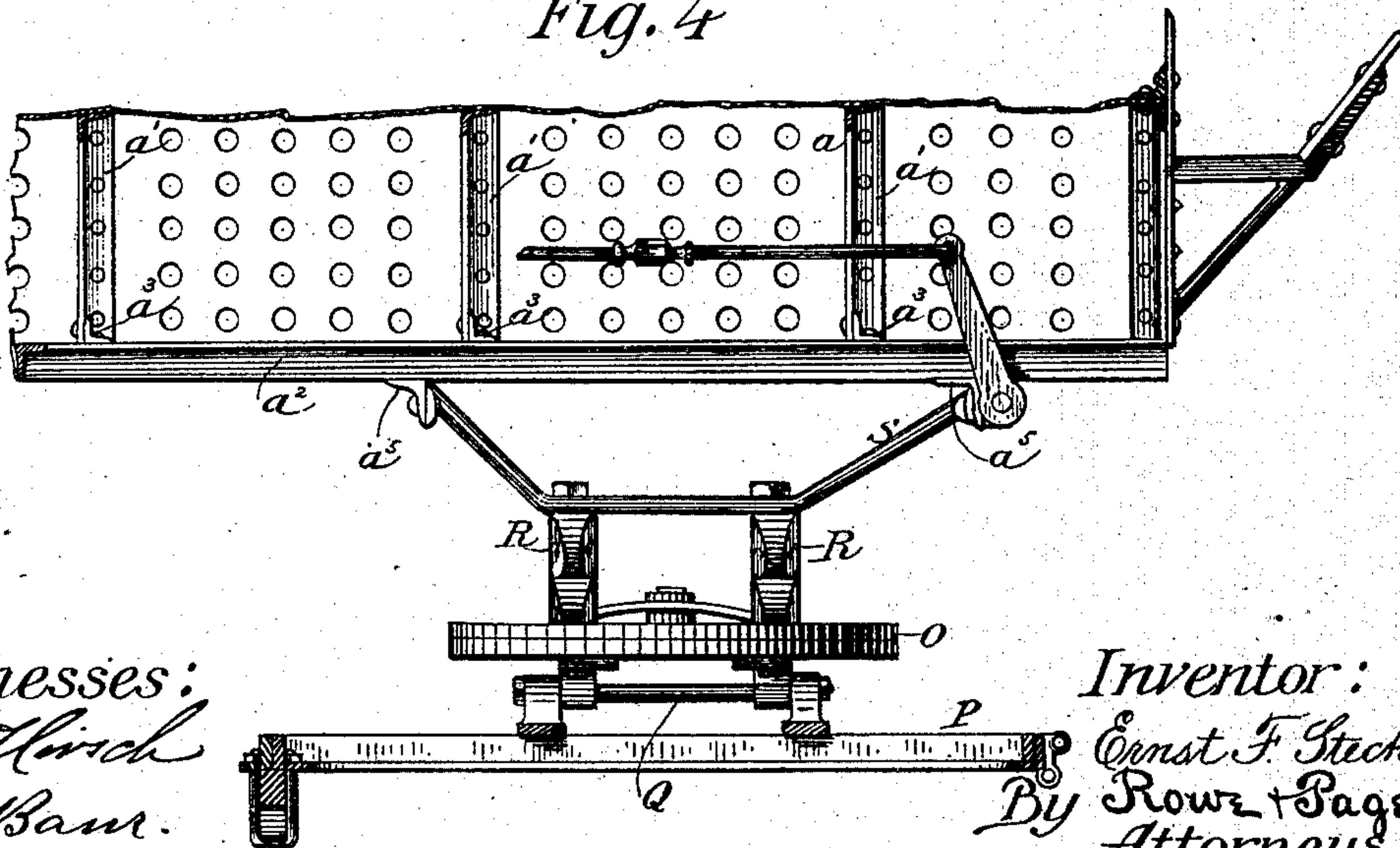


Fig. 4



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UNITED STATES PATENT OFFICE.

ERNST F. STECK, OF CHICAGO, ILLINOIS.

HOSE-WAGON.

SPECIFICATION forming part of Letters Patent No. 325,990, dated September 8, 1885.

Application filed June 9, 1885. (No model.)

To all whom it may concern:

Be it known that I, ERNST F. STECK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Hose-Wagons, of which the following is a specification.

The object of this invention is to provide a hose-wagon having a body wherein hose may be stored, in readiness for service, with a broad open receptacle arranged over the body proper and extended beyond the sides thereof, so as to form an elevated hose-support, whereon the hose, after service at a fire, may be thrown and heaped up, whether tangled or otherwise, thereby relieving the firemen from the immediate labor of coiling up and bringing the hose within the compass of the space afforded by the wagon-body; also, to provide a hose-wagon with two separate hose-receptacles, the one formed by a box-body open at its rear end, and the other by a deck or stretcher, which may be used either for carrying hose or for ambulance-service; to provide a construction whereby hose may be removed or replaced in a ready and convenient way and without injury to the hose; to increase the carrying capacity of the hose-wagon without materially and proportionally increasing the weight of the structure; to provide for a separation of wet from dry hose; to avoid an accumulation of water within the body of the hose-wagon; to provide a simple, strong, and comparatively light construction of sheet-metal body provided with side sills, and having an arrangement of braces which serve to hold the body together and render it rigid and durable; and to provide certain details of construction materially adding to the efficiency of the structure as a hose-wagon. These objects are attained by the devices hereinafter described and claimed, and illustrated in the annexed drawings, in which—

Figure 1 is a perspective view of a hose-wagon embodying the features of my invention. Fig. 2 is a transverse section with the running-gear removed. Fig. 3 is a top plan view of a portion of the driver's seat. Fig. 4 is a detail showing in side elevation a portion of one of the sides of the body, and also a portion of the running-gear.

The hose-wagon herein shown comprises in

its structure an oblong box-body, A, an elevated driver's seat, B, at the front, and a low-down step or platform, C, at the rear for one or more attendants to stand upon. The body A is composed of a bottom, two sides, and a front end, the usual end-gate being omitted in order to leave the body open at the rear, and thereby permit the hose to be more readily placed within or drawn out from the same.

To prevent the hose from being drawn against the rear end edges of the sides and bottom of the body, a roller, D, is arranged parallel with and adjacent to the rear end edge of the bottom, and rollers D' D' are placed in like relation to the rear end edges of the two sides. The horizontally-arranged roller D extends substantially the width of the body, and is mounted so as to lie wholly or partially, but preferably, partially above the plane of the bottom, while the upright rollers D' are mounted so as to stand at least partially within the space between the two sides. These rollers not only serve as guards for preventing the hose from rubbing against the rear end edges of the sides and bottom, as aforesaid, but they also permit a large coil of hose to be more readily passed into or taken out from the body of the wagon.

Above the bottom of the body is arranged a deck or stretcher, E, which is preferably formed of a sheet of some flexible material—such, for example, as leather or canvas. The deck or stretcher E desirably covers the entire open top of the oblong box-body, and is attached to and suspended between two horizontal supports, F, which are parallel with and supported from the sides of the body. The deck E serves as a means for supporting hose above the body of the wagon, and it may be either drawn taut between its supports, or permitted to sag to some extent between them, as herein illustrated, the latter condition being sometimes desirable on account of its tendency to bring the greater weight of a quantity of hose thrown carelessly thereon more directly over the middle portion of the hose-wagon. This deck can also be brought into service as an ambulance-stretcher, and in order to vary the extent to which it is desirable it shall hang or sag over the bottom and between the sides of the body the supports F consist of rollers which are journaled

in suitably-arranged bearings F' . The flexible sheet which forms the deck E is secured along its side edges to these rollers, and can be wound more or less upon either or both, as may be desired. In such case means suitable for locking the rollers against rotation will be provided—as, for example, either or both of the two rollers can be held against rotation by means of a pawl, f , pivoted to a bearing, F' , in position to engage a ratchet, f' , secured upon one of the journals of the roller; or in place of a locking mechanism of such character the journals of the rollers can be squared and seated in notches formed in the bearings F' , as herein shown in connection with one of the journals, and a bearing therefor at f^2 , which said construction admits of either or both rollers being readily detached from the bearings, and when thus detached handled so as to roll up or unroll a portion of the flexible sheet. A further advantage attained by such construction is that the deck can be removed from the hose-wagon when so desired. As it may therefore be desirable to provide mechanism for locking one both rollers against rotation, and at the same time to provide a construction whereby both rollers can be readily detached from their allotted bearings, these two features can be herein combined, as will be evident without further illustration and description.

The body of the hose-wagon is also provided with sill-plates G G , extending along and projecting out from the upper edge portions of the vertical sides of the body, so as to form along each side of the latter a sill or platform which serves as a continuation or side extension of the deck E . The sill-plates are preferably formed of sheet metal, and are riveted upon and supported by bracket-arms K , which extend laterally from the sides of the hose-wagon body. The sill-plates are each provided with a railing consisting of a hollow metal rail, M , supported from the outer edge portion of the sill by means of posts M' , which are usually made hollow and secured to the rail and the sill by tie-bolts. The bearings for the journals of rollers F are arranged at the end portions of the sill-plates in position to bring the rollers near the inner edges of the sills, so as to permit the deck to overhang the space between the sides of the body without bearing and rubbing upon the upper edges of the said sides.

The deck E , irrespective of the material of which it is composed and the manner in which it is secured at the upper portions of the sides of the body, and the sill-plates G , provided with railings and arranged with relation to the body of the wagon and to the deck, as set forth, all combine to provide over the box-body of the hose-wagon a broad upper deck or receptacle which extends beyond the sides of the box-body, and serves to receive and hold a large quantity of hose.

It is evident that a quantity of hose wound into coils and carefully stored within the body

of the hose-wagon, so as to fill the same, must, after it has been taken out and brought into use, be again carefully coiled, in order to permit the entire quantity to be again placed within the wagon-body. Owing to the tired condition of the firemen directly after a fire, and frequent stiffened condition of the hose after service in cold weather, it is obviously most desirable that the packing away of the hose in a manner to render it readily available should be attended to at the engine-house or other home provided for the hose-carriage. The construction of hose-carriage hereinbefore described permits the firemen to throw the hose, either tangled or otherwise, upon the broad upper deck, and in a wet or tangled condition conveyed home, to be there dried, cleaned, and again packed within the body of the wagon. It may also be observed that in case only a portion of the hose has been brought into use, such portion can, after the required service, be thrown upon the upper deck or stretcher, and hence kept from contact with the clean dry hose remaining within the body of the wagon.

The sides, bottom, and front end of the body are formed of sheet metal, each being preferably formed of one separate piece.

Each side a consists of an oblong rectangular metal plate or piece of sheet metal, which is braced and strengthened by a series of upright cleats or side bars, a' , formed of angle-iron, and secured by rivets to the outer face of the side, as best shown in Fig. 4. Each side a is further braced and strengthened by a longitudinally-arranged cleat or side bar, a^2 , formed of angle-iron, and secured by rivets along the lower edge portion of the sheet-metal side. The upright side bars a' are also rigidly connected with the longitudinal side bars a^2 , for which purpose each upright side bar is provided at its lower end with a perforated foot or lug which seats upon and is bolted to the horizontal flange portions of the longitudinal side bars, as shown at a^3 , Fig. 4. The bottom a^4 of the body is also formed of sheet metal, preferably in one piece, and is braced and supported at suitable intervals by cross-bars a^5 , which are formed of angle-iron and arranged transversely to the length of the body at proper points against the under side of its sheet-metal bottom, which latter is secured by rivets to the horizontal flange portions of these transversely-arranged bottom bars. The transverse bottom bars, a^5 , extend somewhat beyond the sides of the body, and are at their outer ends rigidly connected with the upright side bars a' by means of short inclined brace-rods H , which are bolted at their ends to the said transverse and upright bars, respectively. These brace-rods being thus arranged to rigidly connect together the transverse bars, which are secured to the bottom, and the upright side bars, which are secured to the sides of the body, serve therefore as means for practically connecting together the bottom and the sides of the body,

in addition to which function they also serve to brace the sides and hold them against any strain to which they may be subjected by reason of weight sustained by the deck E, or by both said deck and the sill-plates. This mode of bracing is also desirable, in view of the absence of an end-gate for the wagon-body.

The vertical front end of the body will also be formed of sheet metal braced in a manner similar to that in which the sides are braced and strengthened, as will be readily comprehended without special illustration.

The arrangement of braces such as described provides a rigid frame-work, mainly composed of angle-iron and serving to support and hold together the sheet-metal body, which is formed of separate pieces for the sides, bottom, and front end, as hereinbefore set forth.

As an additional means for holding together the several parts of the sheet-metal body, angle-irons a^6 , Fig. 2, are preferably applied within the body along the junction of the sides and front end with the bottom, and desirably along the junction of the sides with the front end.

The bracket-arms K, which support the sill-plates, may be of angle-iron, so as to provide horizontal flange portions upon which the sill-plates are secured, and vertical flange portions which are bolted to the angle-iron side bars, a' . The bracket-arms K are further supported and braced by means of inclined brace-rods L, which are welded or bolted at their upper ends to the bracket-arms, and at their lower ends bolted to the upright side bars a' .

The sheet-metal body is perforated through the bottom, and preferably through the sides, in order to provide outlets for any water or dirt which may collect within the body.

The disposition of the angle-iron cleats or brace-bars is such that while they serve to strengthen and give the sheet-metal body the requisite degree of rigidity ample space is left for the said perforations.

The rails M, which extend horizontally over the sill-plates, are extended back of and bent down at the rear of the hose-wagon body, their rear terminals being connected with the low-down step C. The two rearmost side bars, a' , are extended down to and connected with the forward edge of the lower step, the downward extensions a^7 of said two bars being arranged between the rear wheels, as shown in Fig. 1. The rear downwardly-extended portions of the rails M are braced from the two rearmost side bars, a' , by means of horizontal arms or braces m , which latter may be welded to the upper ends of the two rearmost of the two series of inclined brace-rods, H, thereby providing two double braces at the rear end of the hose-wagon body.

The driver's seat is formed by a rectangular frame, b , of angle-iron, within which frame is fitted a metal plate, b^3 . This metal-plate rests upon and is riveted to the inner ledge formed by the horizontal flange portion of the rect-

angular frame, and the said frame is supported from the sill-plates by means of hollow posts b' , through which are extended tie-rods b^2 , serving to tie together the frame-posts and sill-plates. The seat-frame and its supports constitute in effect an arch rigidly connected together to the sill-plates, and thereby permitting one sill-plate to oppose, through the medium of such arch, a resistance to an undue amount of strain occurring upon the other sill-plate.

The vertical flange portion of the rectangular seat-frame is turned upwardly and provides a support for the rods b^5 , which are secured at their lower ends to the frame, and at their upper ends attached to a seat-rail, b^4 .

It is proposed to support the rear end of the hose-wagon body upon springs in any ordinary or suitable way, but preferably to support the forward end of the body upon a fifth-wheel which is hinged upon a horizontal pivot in a manner heretofore substantially employed in some instances in connection with wagons.

Briefly referred to, the means herein shown for pivoting or hinging the forward end of the body over the front axle consist of a gear-frame, P, secured upon the front springs, a horizontal pivot or pintle, Q, secured in bearings upon the gear-frame and passing through eyes depending from and rigid with the lower section of the fifth-wheel O. Under such arrangement the body is supported from and in rigid connection with the upper half or section of the fifth-wheel. To such end a pair of cross blocks or bolsters, R, is secured upon the upper section of the fifth-wheel; but in place of seating the body directly upon the said bolsters, as in said application for hose-carriages, the body is connected with and supported from the bolsters by bent rods or hangers S, each consisting of a rod or bar having its end portions bent upwardly. The extremities of the upturned end portions of these bars are bolted to the vertical flange portions of the transverse bottom-bars, a^5 , while the middle horizontal portions of the bars or hangers S cross the two bolsters and are securely bolted to the same. This feature affords ample space between the gear-frame and the bottom of the hose-wagon body, and provides a simple and rigid connection between the latter and the bolsters. It is also desirable, in view of the arrangement of transverse bottom bars, a^5 , and is made the subject of one of the claims in this application.

It will be evident without special illustration and description that slats may be placed along the inner surfaces of the sides and bottom of the body in order to prevent the hose from coming in direct contact with the sheet metal, the slats being arranged to form frames—such, for example, as found on the floors of street-cars.

What I claim as my invention is—

1. A hose-wagon provided with a broad upper hose-receptacle arranged over the body

of the wagon and extended beyond the sides thereof, substantially as and for the purpose described.

2. A hose-wagon provided with two separate hose-receptacles, the one consisting of a spring-supported box-body open at its rear end, and the other consisting of a flexible deck, E, suspended between the longitudinal sides of the box-body, and arranged over the bottom thereof at a height to permit the hose to be conveniently placed and held either within the body or upon the flexible deck, substantially as herein described, and for the purposes specified.

3. A hose-wagon provided with two separate hose-receptacles, the one consisting of a spring-supported box-body open at its rear end, and the other consisting of a flexible deck, E, suspended between the longitudinal sides of the box-body by means of rotary-adjustable rollers, and arranged over the bottom of said body at a height to permit the full quantity of hose to be carried by the wagon to be either placed within the body below the flexible deck, or to be thrown and held upon the latter, substantially as described, and for the purposes set forth.

4. A hose-wagon having a box-body forming a hose-receptacle open at the rear end of the wagon, combined with the guards consisting of rollers arranged along the rear end edges of the bottom and longitudinal sides of the box-body, substantially as shown and described, and for the purposes set forth.

5. A hose-wagon provided with an upper and a lower horizontally-arranged hose-receptacle, in combination with rollers arranged, substantially as herein described, at the rear open end of the box-body of the wagon which forms the said lower hose-receptacle, whereby hose can be more readily passed in under the upper receptacle and injury to the hose avoided, substantially as described.

6. The perforated sheet-metal hose-wagon body secured within a rigid frame of angle-iron, substantially as described.

7. In combination with the hose-wagon body

provided at its sides with the sill-plates G, the driver's seat supported upon and rigidly connected with the sill-plates, substantially in the manner and for the purpose described.

8. A hose-wagon provided with a hose-receptacle consisting of the body A, formed of four sheet-metal plates respectively constituting a bottom, two longitudinal sides, and a front end, combined with the upright metal side bars a' , the longitudinal side bars a^2 , to which the upright side bars are secured at their lower ends, the cross-bars a^5 , extending across the under side of the bottom of the body and projecting beyond the sides of the same, and the braces H, connecting the projecting ends of the bottom cross-bars with the upright side bars, said bars and sheet-metal plates being secured together, all substantially as herein described.

9. A hose-wagon provided with a hose-receptacle consisting of the metal body A, composed of separate sheet-metal plates combined with the metal sill-plates G, the upright metal side bars a' , the transverse bottom bars, a^5 , the horizontal sill-supporting bars K, and the inclined brace-rods H and L, respectively, connecting the upright side bars with the transverse bottom bars and the sill-supporting bars, said side and bottom bars being secured to the sheet-metal sides and bottom of the body, substantially as and for the purpose herein described.

10. In a hose-wagon, a hose-receptacle formed by the body A, composed of separate sheet-metal plates suitably braced by side and bottom bars of angle-iron, in combination with the sills G, the deck E, suspended from and between rollers which are mounted upon the said sills, and the inclined braces H and L, serving to brace the sides and sills against such weight as may be sustained by the flexible deck, substantially as described.

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