

M. PINNER.
Portable Furnace.

No. 37,518.

Patented Jan. 27, 1863.

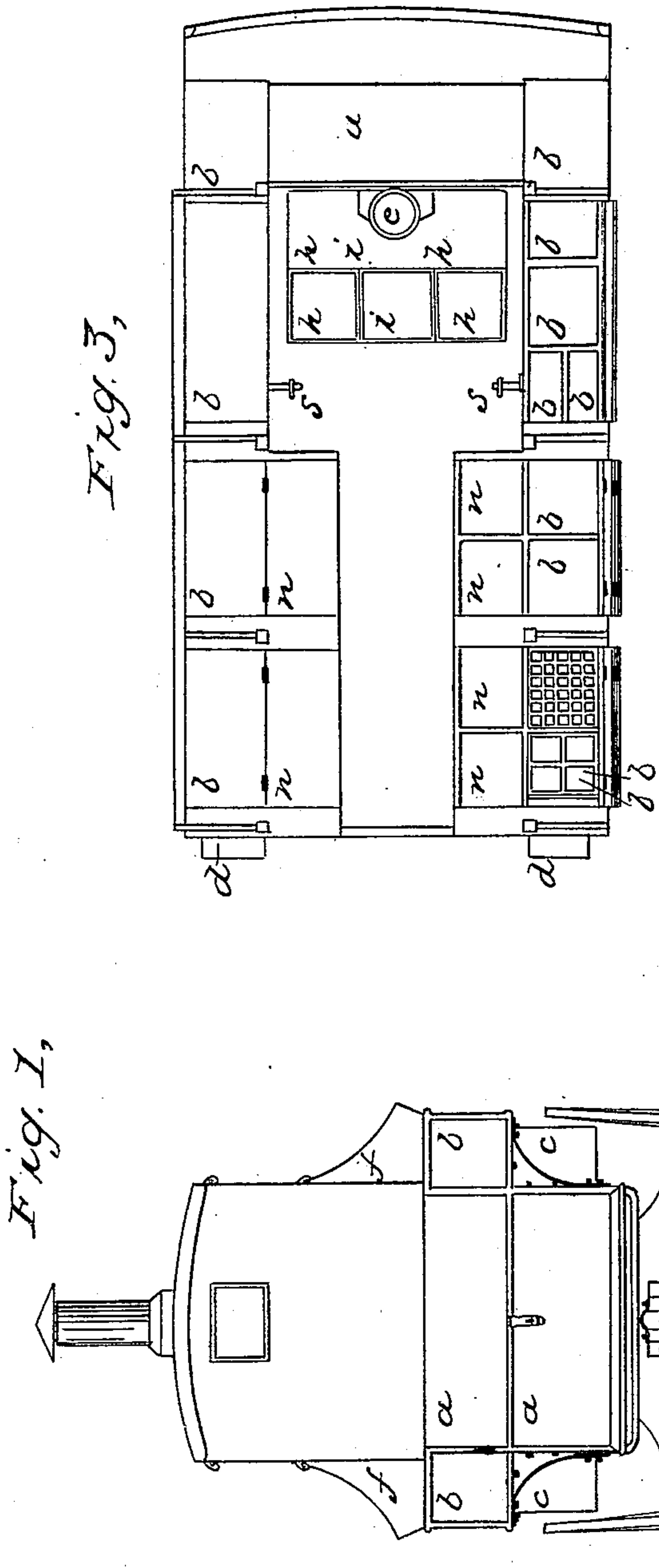


Fig. 3,

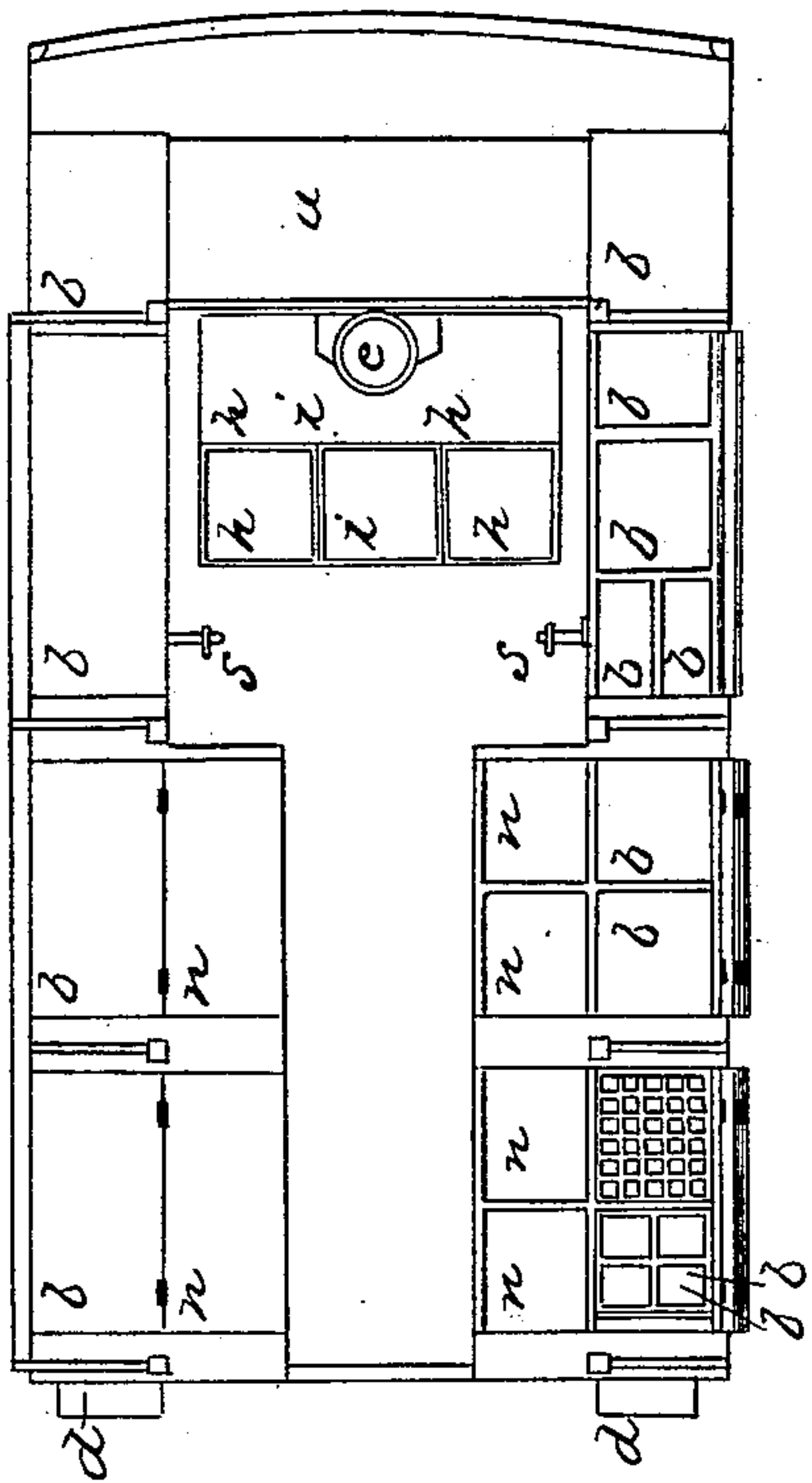


Fig. 6,

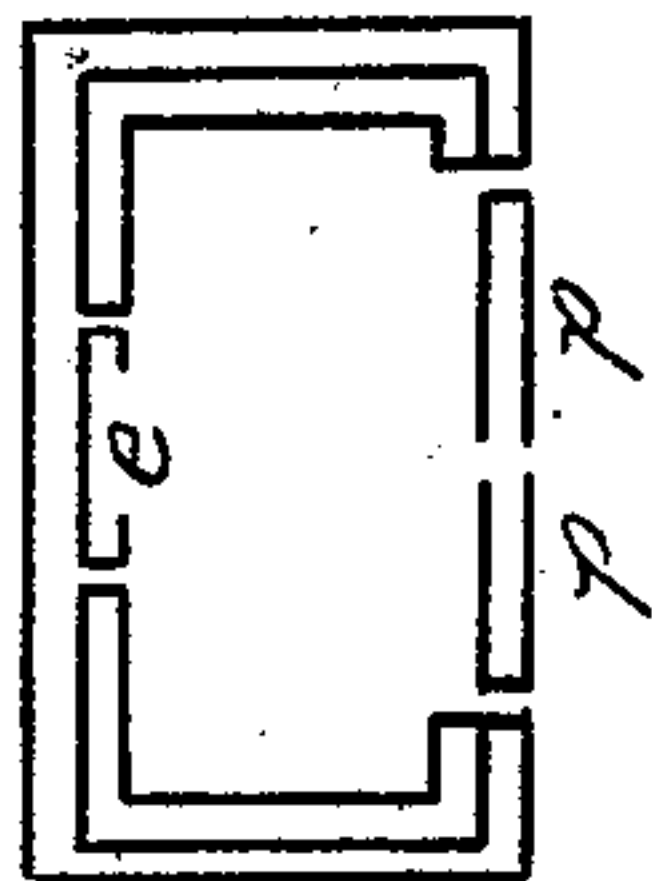
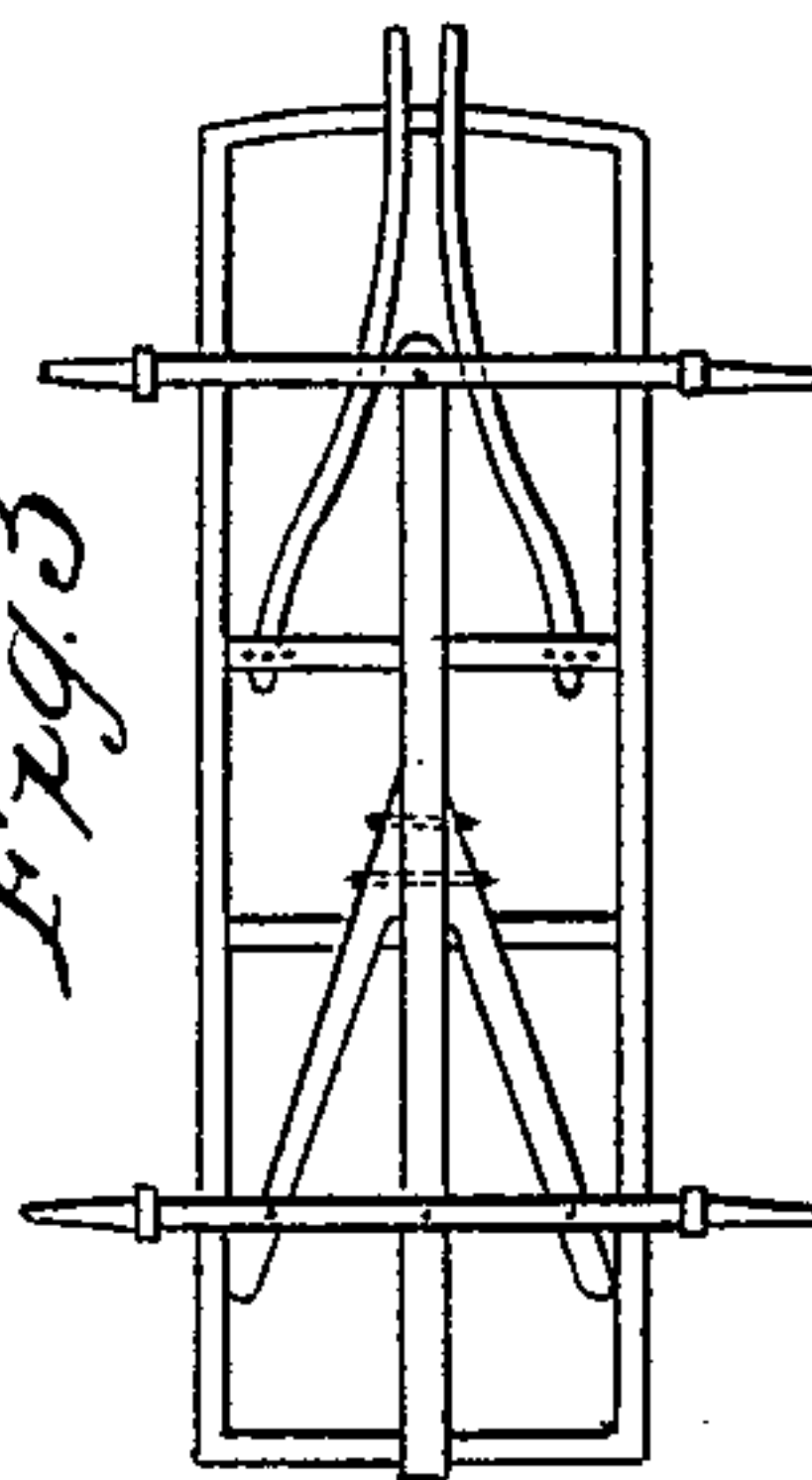


Fig. 5,



WITNESSES:

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Charles Royce*

INVENTOR:

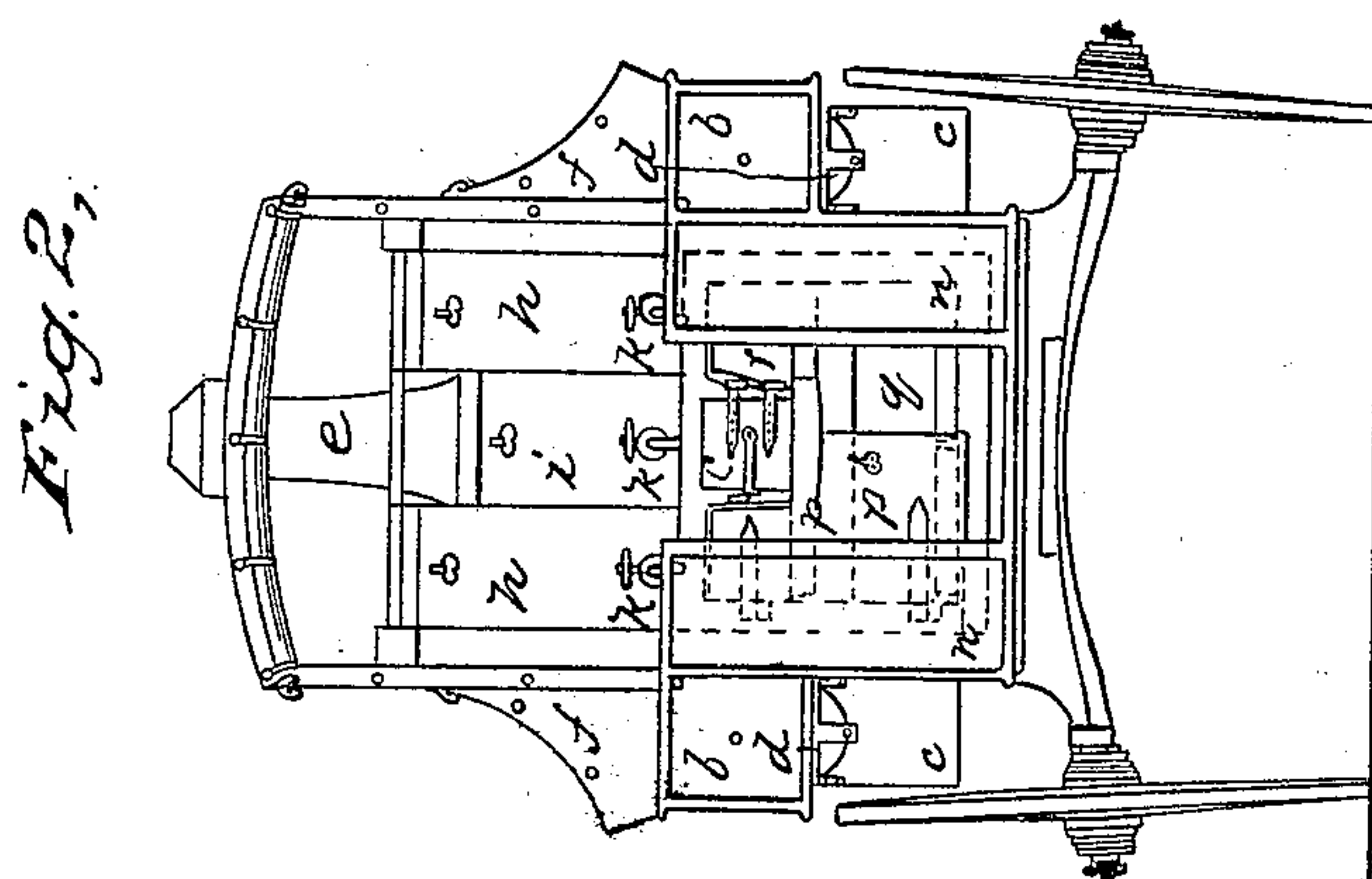
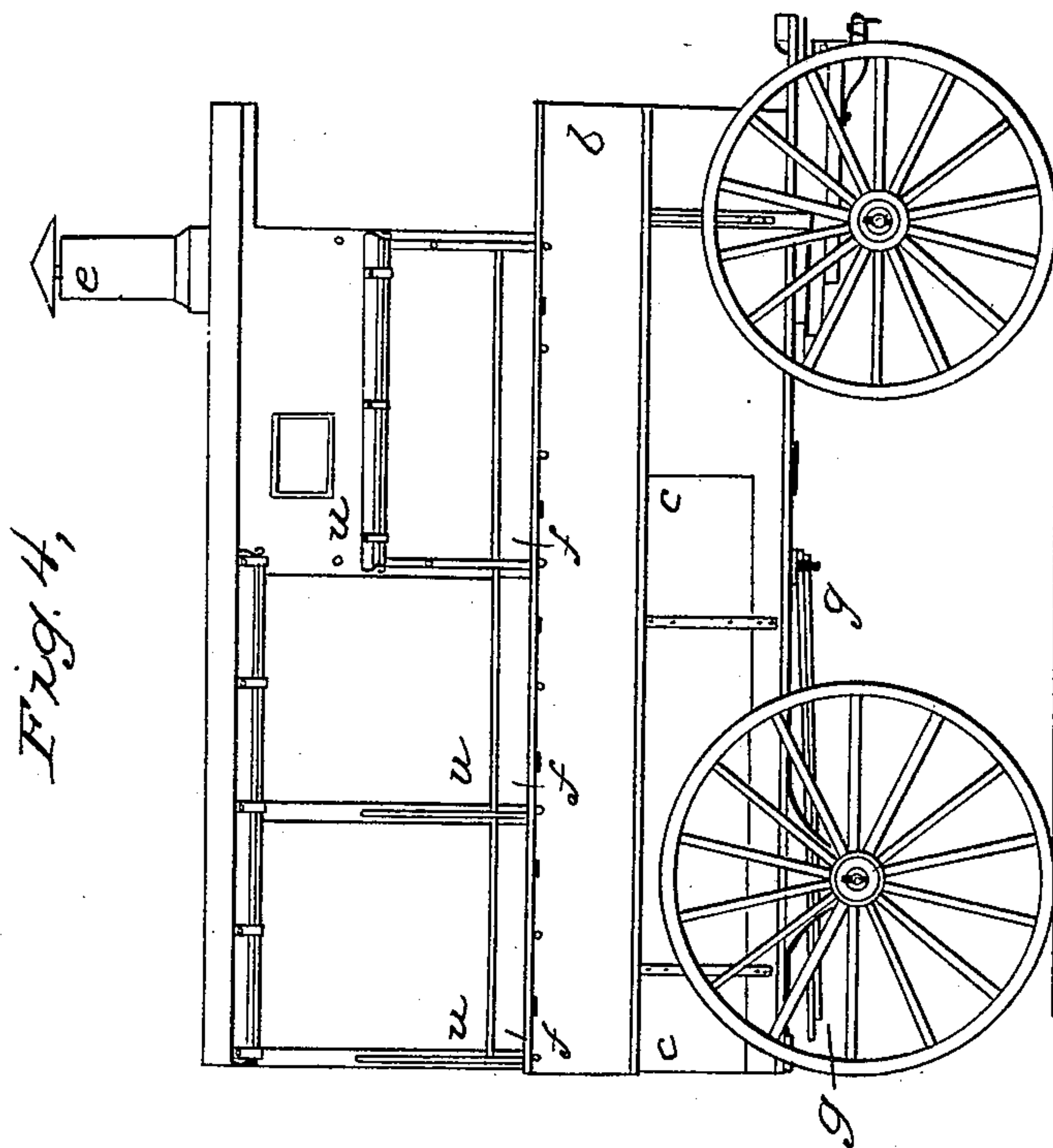
Moritz Pinner

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WITNESSES:
B. J. Hedrick
Charles Rogers

INVENTOR
Moritz Pinner

UNITED STATES PATENT OFFICE.

MORITZ PINNER, OF NEW YORK, N. Y.

IMPROVEMENT IN AMBULANCES.

Specification forming part of Letters Patent No. 37,518, dated January 27, 1863.

To all whom it may concern:

Be it known that I, MORITZ PINNER, of the city, county, and State of New York, have invented a new Ambulance-Kitchen; and I hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

Like letters denote the same parts in all the figures.

The nature of my invention consists in constructing a wagon which, with a cooking apparatus inside of it, will answer the combined purposes of, first, a locomotive-kitchen; second, a locomotive-bakery; third, an ambulance-wagon; fourth, a well-arranged provision-wagon; and, fifth, a medicine and instrument chest.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure I in the accompanying drawings represents the front view of my ambulance-kitchen. Fig. II in the accompanying drawings represents the rear view of my ambulance-kitchen, with the door which connects the two boxes *n* open and swung to the inside of the wagon. Fig. III in the accompanying drawings represents a horizontal section of my ambulance-kitchen. This section is taken on a line with the upper end of boxes *b* and *n*, and the lids of these boxes are shown lifted and folded back, thus concealing the labels on the inside of these lids. Fig. IV in the accompanying drawings represents a side view of my ambulance-kitchen with the curtains partly down and partly raised. Fig. V in the accompanying drawings represents the lower part and bottom frame of the wagon. There is no feature in it deserving of reference. Fig. VI in the accompanying drawings represents a horizontal section of the range underneath the fire-grate on a small but indistinct scale.

a denotes the driver's seat or box with its back extending to the upper line of boxes *b* and *n*. This driver's seat with its back forms a compact movable body, and by the removal of which access is had to the rear of the range or cooking apparatus. Through the aperture thus caused the range can be lifted into and out of the wagon.

b denotes two boxes running outside of the principal side walls and over the wheels, one on each side of the wagon. These boxes contain a number of partitions and lids. These lids are hinged to the lids on boxes *n*, and, like them, are labeled. They open from the inside and fold back toward the outside of the wagon.

b b denote that part of boxes *b* which is arranged for the reception and safe carrying of medicines and instruments.

c denotes two water-tanks running one on each side of the wagon between the principal side wall and the hind wheel, and extending from the rear of the wagon toward the fore wheel without hindering the motion of the latter. These tanks are made of tin or zinc and are covered with boards. The whole is then securely fastened to the sides of boxes *b* and to the cross-pieces of timber in the frame underneath the bottom by screws and brackets. The heavy lines diagonally across these water-tanks *c* in Fig. I denote brackets fastened to the sides and bottom of boxes *b* and to the cross-pieces of timber in the frame underneath the bottom of the wagon.

d denotes the iron funnels, with their flat leather covers, by means of which the water is poured into the tanks. On lifting these leather covers a hole protected by a movable cork is visible in each tank. These leather covers button upward on opening and downward on closing the funnels.

e denotes the stove-pipe. This pipe runs inside and along the whole rear wall of the range, straight up and close to the rear wall of boiler *i*. Up to the top line of boiler *i* the pipe runs in square form. There it begins to taper, and finally rounds off on getting through the top of the wagon.

f denotes iron fastenings and railings, extending on each side of the wagon, fastened to the sides and resting securely upon the outer upper edges of boxes *b*. The side curtains extend over these fastenings and railings, thus adding to the space inside the wagon and sheltering whatever stores might be carried on top of boxes *b*.

g denotes a table provided with staples on each side edge, by means of which it is fastened (movable) by straps or chains to the bottom of the wagon. This table answers for

dining or surgical purposes, and the legs belonging to it are carried conveniently in one of the boxes inside the wagon. This table is also made so as to fit between the boxes *n*, resting partly upon their lids. By placing the table in this position a space on the lids of boxes *n* is procured large enough to transport two sick or wounded men conveniently. A third such man can easily be transported on the bottom of the wagon in the space between the two boxes *n*. Mattresses for these sick and wounded are carried along, and when not used are strapped upon and to the top of the wagon, covered with a painted tarpaulin, thus securing them against sparks and moisture. The fire in the grate being well secured, it could, at the option of the surgeon, for the comfort of the sick and wounded in the wagon, either be kept up, moderated, or extinguished.

h denotes the front view of two boilers, made of galvanized iron in square form, and resting partly on top of and partly (three inches) inside the range. These boilers extend from the front to the rear of the range, and have inside of each of them an iron rim, upon which rests a movable galvanized-iron perforated plate, by means of which the space inside these boilers can be divided, and used partly as a boiler and partly as a steamer. Only about one-third part of the top surface of each of these boilers (beginning at the front and extending toward the rear) constitutes a square opening the full width of the boiler, through which the contents are introduced into the boilers. Each such opening is provided with a movable cover, and each cover with a movable iron slide. Each cover has also inside of it, and near the edges, a perpendicular rim one and one half inches deep, and around the edges a heavy iron-wire rim. Each opening is also provided with a similar iron-wire rim around it, and by pressing the cover over a piece of toweling into the opening the wire rim around it is met by that of the cover, and over both these wire rims the iron slide is placed. The boilers thus once covered, neither fast driving nor the jolting of the wagon will cause any spilling or splashing of the contents of the boilers.

i denotes a boiler between the two boilers *h*, which differs from these only in the following: First, it has no steamer-plate in it; second, it is not quite as high as boilers *h*; and, third, it does not extend as far back as boilers *h*, but rests in the rear against the stove-pipe, which there is of square form and occupies all the vacant space between the boilers *h*.

k denotes one faucet on the lower front part of each of the boilers, through which its fluid contents are drawn.

l denotes strips of timber fastened to the inside walls of the wagon near the top of the boilers. They begin on a line with the front of the boilers, thence run back along the side walls to a line of the rear of boilers *h*. There they turn a short angle and thus form a solid

bed for the boilers. About half-way back these strips contain slots just large enough to admit board *m*.

m denotes a board running across the tops of the three boilers into the slots in timber *l*, and is pinned down after fitting into both the slots. This board *m* rests closely upon boiler *h*, and has in its center a square block of wood screwed to it, which block reaches down close to the top of boiler *i*. The front edge of the board *m* reaches the iron rims around the openings on top of boilers *h*, and the rear edge, which is covered with zinc, reaches to within two inches of the stove-pipe. When this board *m* is thus pinned down the three boilers are held firmly in their places, and neither fast traveling nor the jolting of the wagon can displace them or spill their contents.

n denotes the rear end of two boxes, one on each side, running inside the wagon from the rear toward the front and extending to within eighteen inches of the front of the range, thus enabling the oven-doors *p* to be opened and leaned against the sides of the wagon. These boxes *n* have lids and lockers to them. The lids are labeled, and show the contents of the boxes in their various partitions. The lids also open from the inside toward the outside, are hinged to the lids of boxes *b*, and, combined with them, form very convenient tables. A movable baking-board is buttoned to the outside of one of these boxes inside the wagon.

o denotes the front view of the fire-grate with an ash-box visible beneath it. This grate is made of corrugated cast-iron, and extends from the front of the range back to the stove-pipe. Inside the grate, from the top edge of its sides up to the top of the range, is four inches' space on each of the two sides of the grate. This space is only interrupted by a few perpendicular narrow iron bars, and forms the beginning of the flue. These narrow iron bars are put in to prevent the fuel from clogging up the flues while the wagon is in motion. To sustain the grate in its place iron bars forming its bed run around it, riveted to the sides of the range.

p denotes one of the two oven-doors. These doors are made of sheet-iron one-sixteenth of an inch thick, lined with tin to retain the heat and form an air-chamber. The other oven-door is shown open and thrown back between the front of the range and the rear of boxes *n*, thus making *q* and *r* visible.

q denotes one-half of the lower tier of the inside of the oven with its one of the two baking-pans. The oven extends here under the fire-grate uninterrupted from one side of the range to the other.

r denotes one-half of the upper tier of the inside of the oven with its one of the two roasting-pans. The width of the oven is here interrupted by the fire-grate.

s denotes the faucets on each side inside of

the wagon between the front of the range and the rear of boxes *n*, through which faucets the water is drawn from the water-tanks *c*.

u denotes the side curtains, partly down and partly raised.

The range is made of three shells of sheet-iron, each one-sixteenth of an inch thick. The outside one of these shells forms a cube; the inside two are interrupted by the pipe, as represented in Fig. VI. The bottom space between the two outside shells is filled with plaster-of-paris; the side and rear space of the two outside shells is filled with fire-clay, and this filling, together with the construction of the oven and grate-doors, forms a non-conductor around the range. The two inside shells form the flues. These flues, beginning, as described, in *o*, run around the oven and end in an aperture in the lower front part of the pipe. These three shells and the pipe inside of them are well riveted together, and a brace of angular iron connects the outside shell with the top all around. The top of the range is one-fourth of an inch thick, of sheet-iron, and is strengthened underneath by cross-bars between the

holes wherein the boilers rest. Heavy angular wrought-iron legs are attached to the range, and these legs are securely bolted and fastened to the bottom of the wagon.

What I claim by my invention, and desire to secure by Letters Patent, is—

1. The combination of a cooking-stove with the body of a wagon, arranged and operating for use as an ambulance and kitchen, substantially as herein set forth and described.

2. The combination of a cooking-stove with water-tanks and a wagon arranged for use as an ambulance or locomotive kitchen, either separately or combined, substantially as above set forth and described.

3. An ambulance-wagon combining the following features—to wit: An ambulance, a medicine-chest, a wagon, compartments for storing provisions, a cooking-stove, and a baking-oven, the whole arranged and operating substantially as above set forth and described.

MORITZ PINNER.

Witnesses:

B. S. HEDRICK,

JOHN S. HOLLINGSHEAD.