

No. 671,340.

Patented Apr. 2, 1901.

R. HOOKE.

COMBINED FIRE WAGON AND ASPHALTIC MIXTURE HEATER.

(Application filed Jan. 28, 1901.)

(No Model.)

Fig. 1.

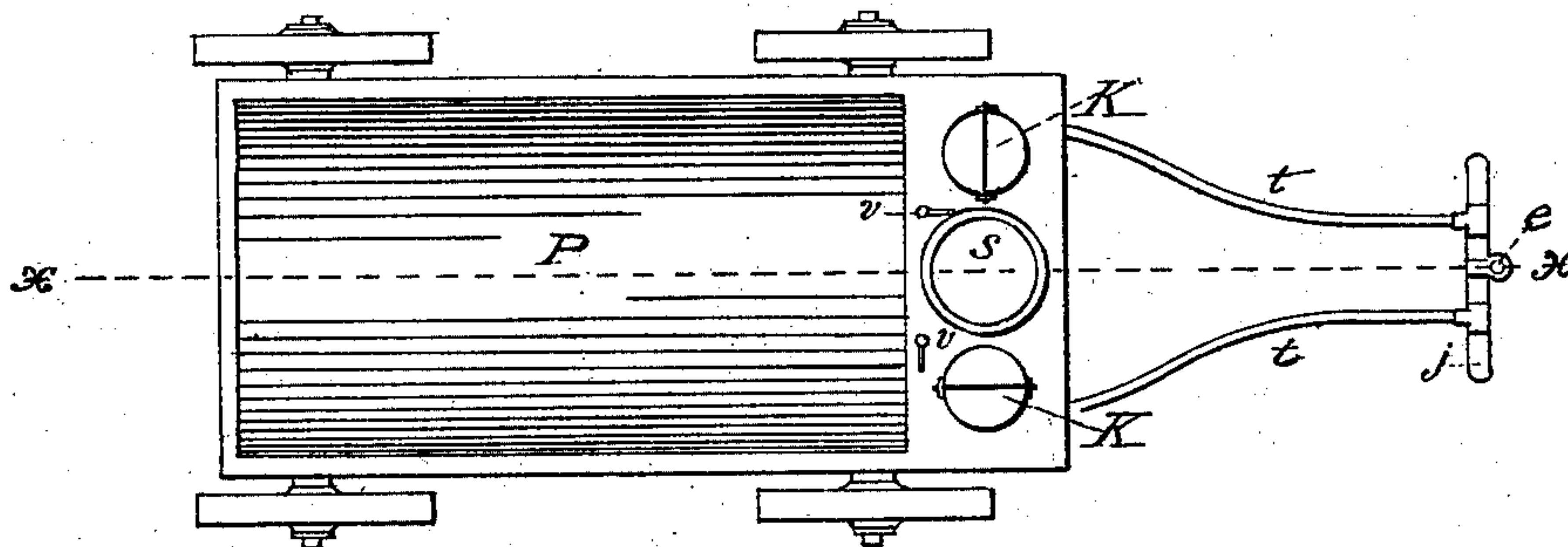
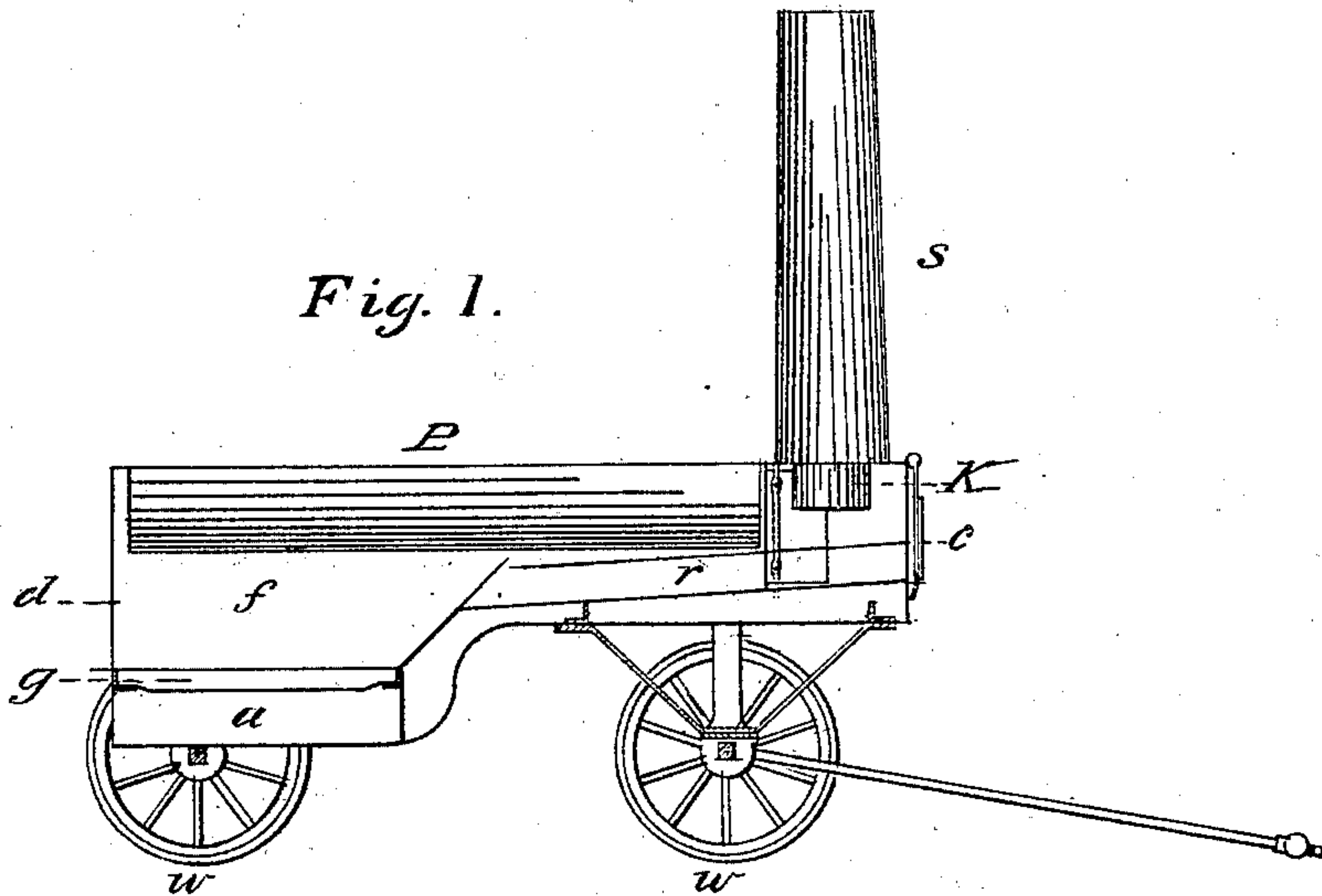


Fig. 2.

Fig. 3.

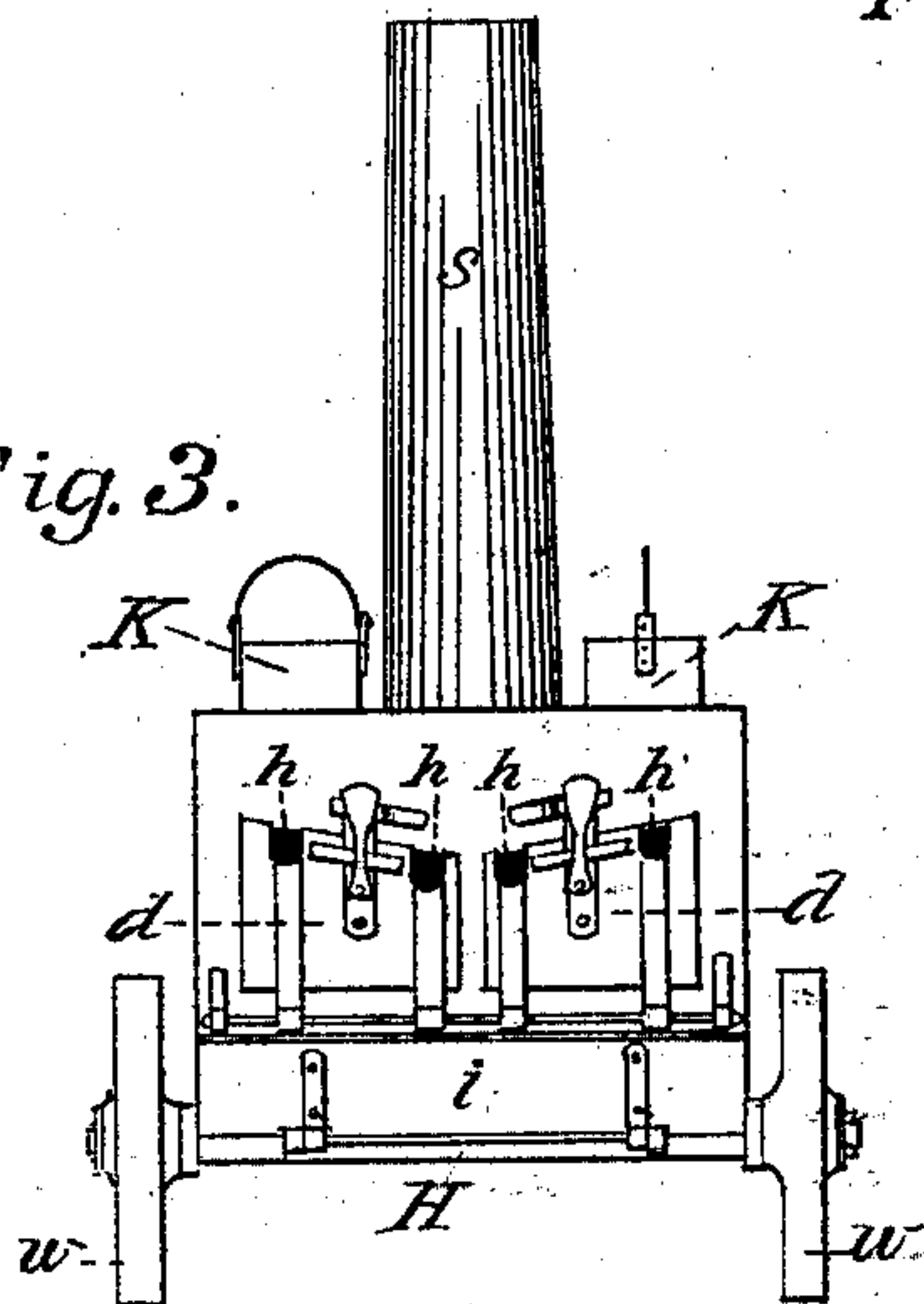
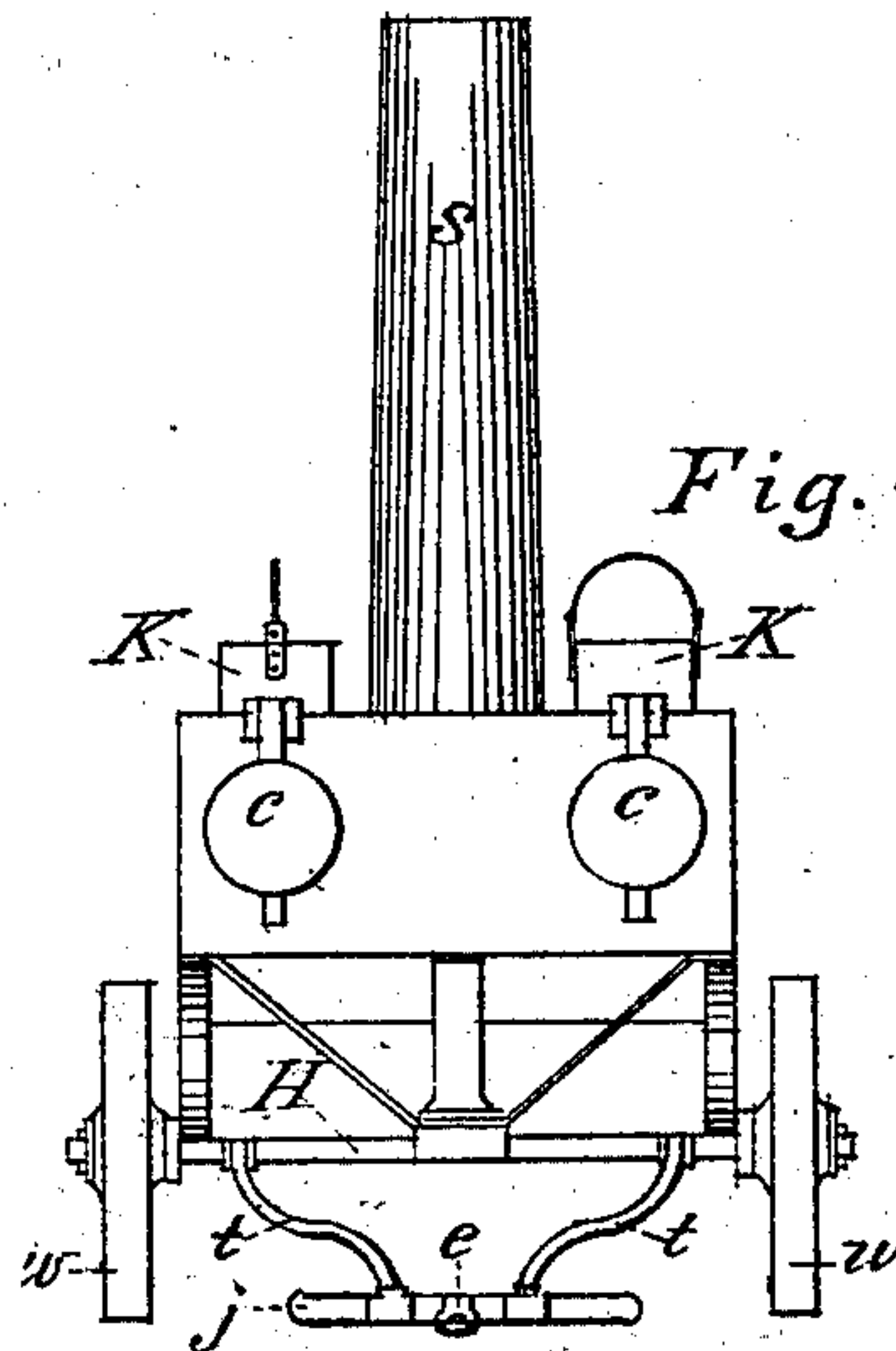


Fig. 4.



Witnesses:

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# UNITED STATES PATENT OFFICE.

ROBERT HOOKE, OF CHATTANOOGA, TENNESSEE.

## COMBINED FIRE-WAGON AND ASPHALTIC-MIXTURE HEATER.

SPECIFICATION forming part of Letters Patent No. 671,340, dated April 2, 1901.

Application filed January 28, 1901. Serial No. 45,172. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT HOOKE, a citizen of the United States, residing at No. 616 Georgia avenue, in the city of Chattanooga, county of Hamilton, and State of Tennessee, have invented a useful appliance which I style a Combined Fire-Wagon and Asphaltic-Mixture Heater, of which the following is a specification.

My invention relates to an appliance for use in the repairing of asphalt pavements; and it consists of a fire-wagon carrying a pan of the form of a segment of a cylinder with closed ends, in which is heated the asphaltic paving mixture, whether old or new material, together with two kettles to contain and in which is heated asphaltic cement, and having in the doors of the fire-box openings to permit the protrusion of the handles of the tampers and smoothing-irons while the latter are being heated in the fire-box or furnace of the fire-wagon preparatory to being used in tamping and smoothing the asphaltic pavement mixture after the latter's removal from the pan to the hole in the pavement which it is designed to repair.

The construction and use of the combined fire-wagon and asphaltic-mixture heater is definitely shown in the accompanying drawings, in which—

Figure 1 is a vertical section on line *x x* of Fig. 2; Fig. 2, a plan; Fig. 3, a rear end elevation showing doors of fire-box and tool-handle apertures, and Fig. 4 the forward end elevation.

Similar letters denote similar parts in the different views or sections.

P is a pan having the form of a segment of a cylinder, in which is heated the asphaltic pavement mixture; K K, the kettles for containing and in which is heated asphaltic cement.

*c c* are hinged covers for closing the circular openings which receive the kettles K K when these kettles have been temporarily removed.

*v v* are the handles for working the dampers which, in a certain position, partially close the throat of the heater for the purpose

of forcing the hot air and burning gases around the kettles K K when more rapid heating of the asphaltic cement is desired.

*f* is the fire-box; *a*, the ash-space; *g*, the grate-bars of the fire-box, and *r* is the throat or draft-space leading from the latter beneath the pan P to and around the kettles K K to the smoke-stack *s*.

*d d* are the doors of the fire-box *f*, opening outward and downward, and *h h h h* are holes in these doors, the purpose of which is to permit the closing of the doors while the tampers and smoothing-irons are being heated in the fire-box by allowing the handles thereof to protrude through the said openings *h h h h*.

*i* is the hinged door of the ash-pan, opening downward.

*t t* is the tongue, and *j* the wooden handle thereof, to which is attached the eye *e*, the purpose of which is to receive the chain or hook with which it is designed to attach the fire-wagon and asphaltic-mixture heater to the rear of an ordinary wagon. The whole is supported on and carried by the wheels *w w*, which are provided with roller-bearings and the axles H.

I am aware of the fact that pans having the form of a segment of a cylinder, set on brickwork, have been used for reheating asphaltic pavement mixture, both new and old, for use in repairing asphalt pavements; but this necessitates the employment of a wagon or cart to transport the heated mixture to the street to be repaired and the further employment on the street of a fire-wagon for the purpose of heating the cast-iron tampers and smoothing-irons to be used in compacting and smoothing the pavement mixture after the latter is deposited in the hole to be refilled therewith and for the further purpose of warming or reheating the asphaltic cement which is used in painting the surface of the old asphalt with which the hot mixture is to come in contact.

The advantage I claim for my invention is that the wagon or cart for transporting the heated pavement mixture from the stationary reheating-pan is not required where only three (3) or four (4) square yards of pavement



are to be repaired; but the paving mixture may be placed directly in the pan of the combined fire - wagon and asphaltic - mixture heater, and in this taken to the street by the  
5 three (3) or more laborers who are to make the repairs, and the tampers and smoothing-irons being introduced into the fire-box at the time of starting from the yard or supply depot may, as well as the asphaltic cement  
10 in the kettles, be heated while *en route* to the street where the repairs are to be executed, with the further advantage that the pavement mixture being with this machine reheated on the street it is not liable to have  
15 its temperature brought too low by cooling, as in the case where transportation by wagon

or cart from the stationary heater to the street is resorted to.

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

The combination in the manner set forth herein, in one portable machine or device, of a fire-wagon for heating the tools, used in making the repairs of asphalt pavements, for heating the asphaltic cement used in the  
25 work, and of a heater for heating or reheating the asphaltic paving mixture whether old or new material.

ROBERT HOOKE.

Witnesses:

EMIL WASSMAN,  
JOHN O'DONOHUE.