

(N.o Model.)

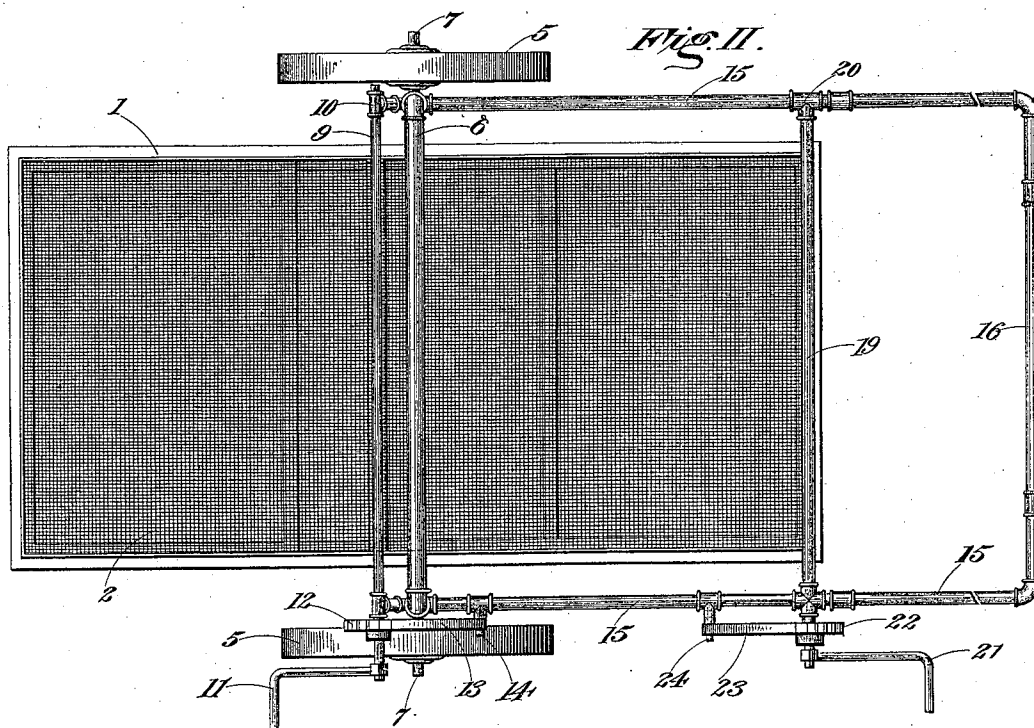
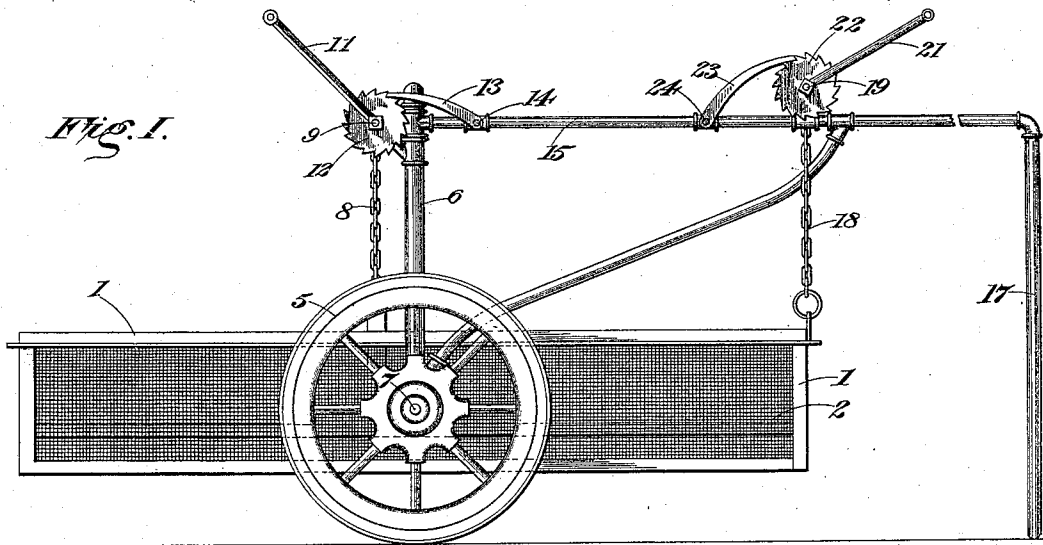
4 Sheets—Sheet 1.

P. W. HENRY.

APPARATUS FOR REPAIRING ASPHALT PAVEMENTS.

No. 574,681.

Patented Jan. 5, 1897.



Witnesses

2X witnesses
M. E. Fowler
Snicker

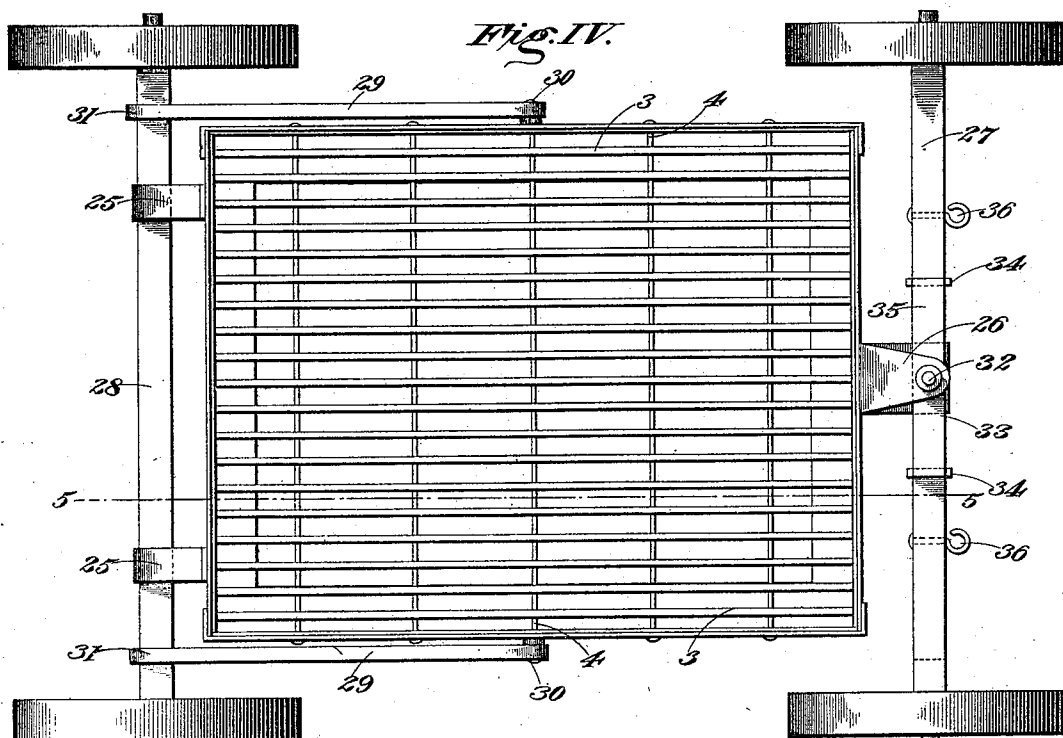
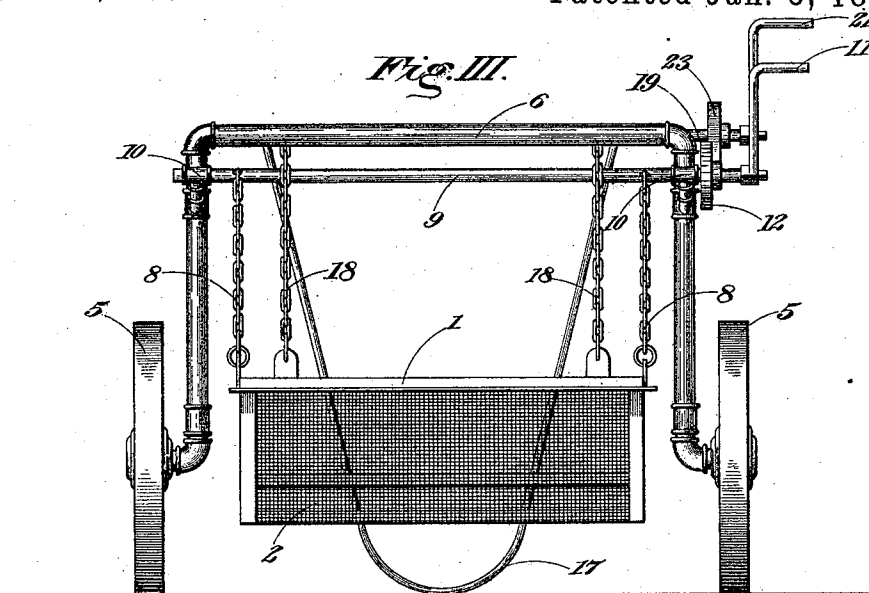
Philip W. Henry Inventor
By Joseph L. Henry Attorney

P. W. HENRY.

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Witnesses

M. C. Fowler
S. M. Macker

Inventor

Philip W. Henry

By Joseph L. H. H. H. H.
Attorney

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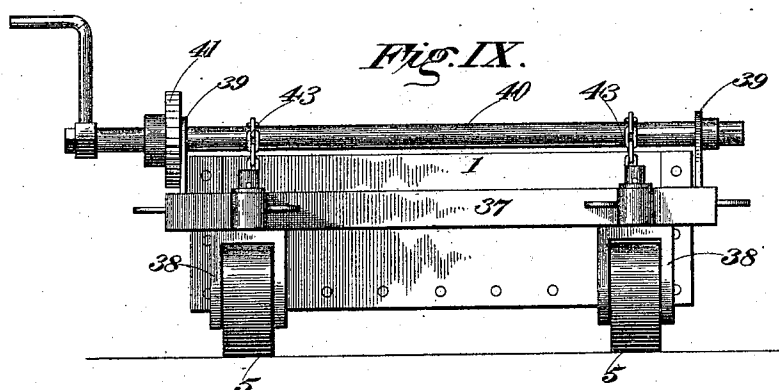
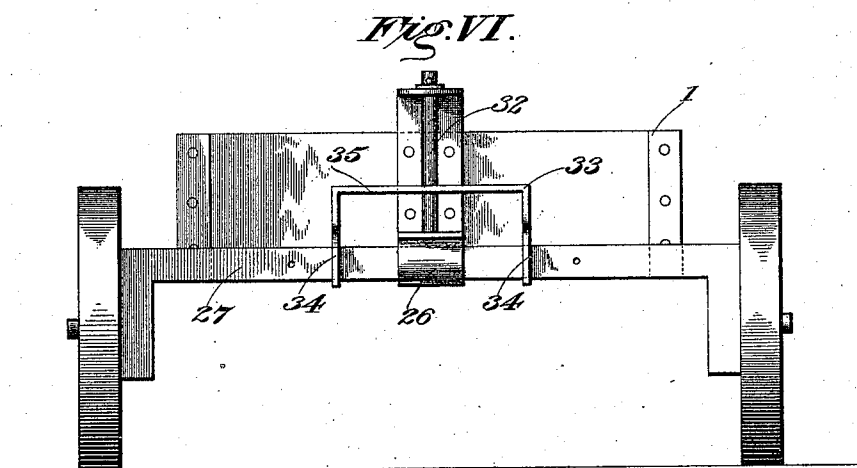
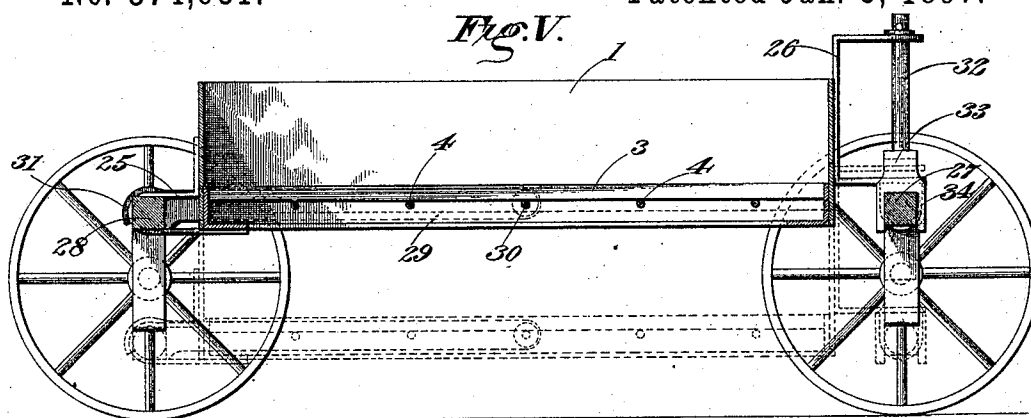
4 Sheets—Sheet 3.

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Witnesses

Witnesses
M. E. Fowler
Mackey

Inventor

Philip W. Henry

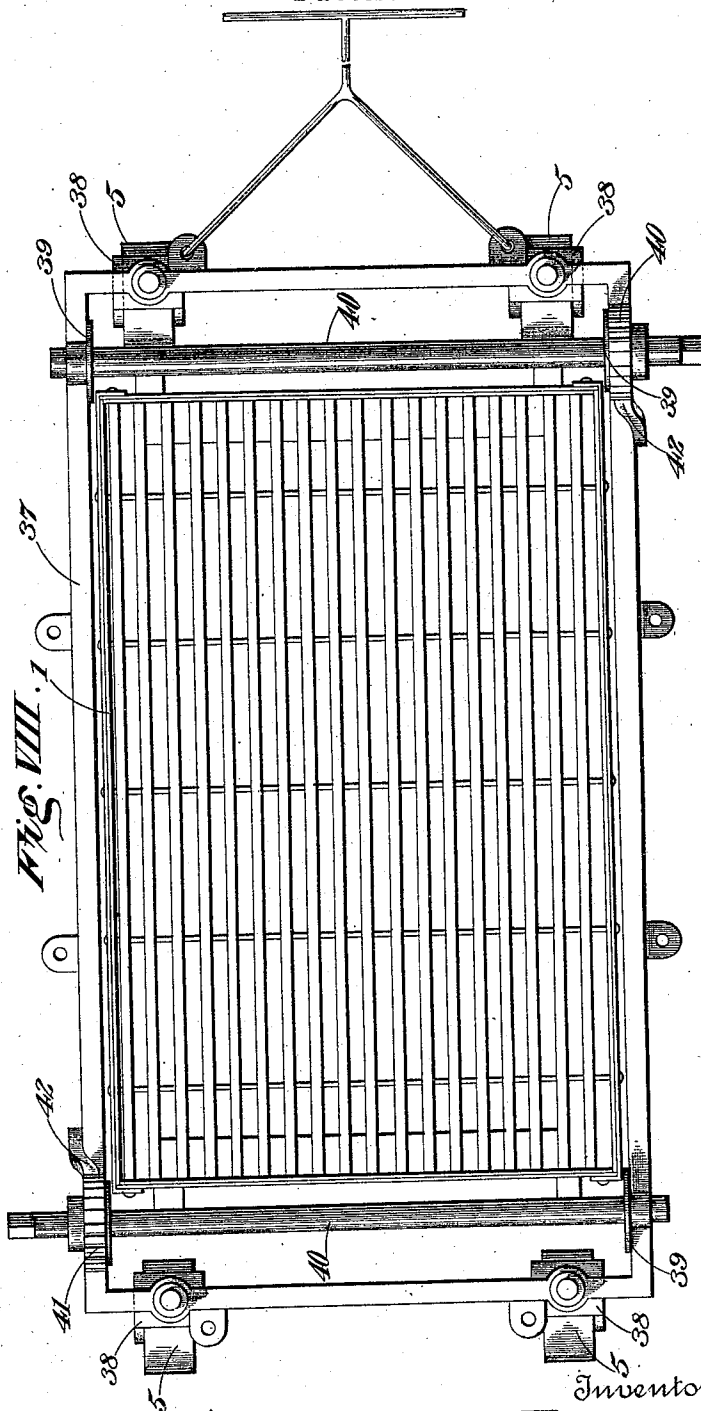
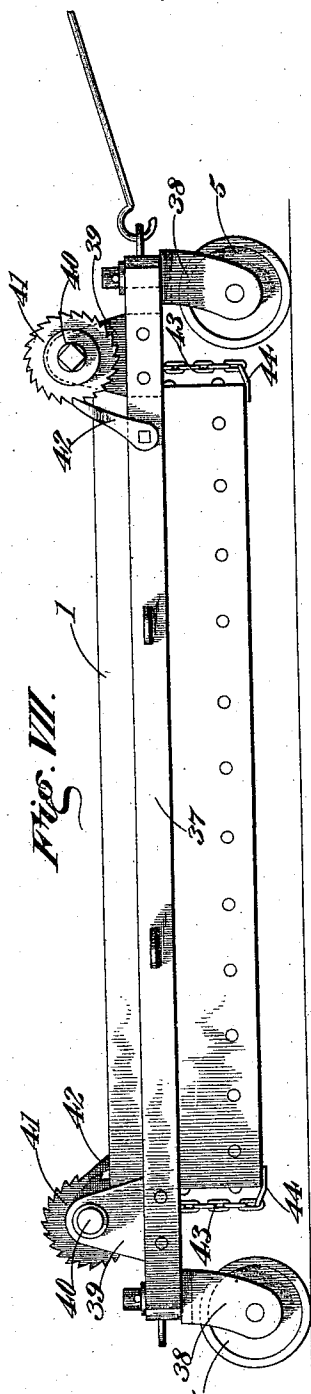
By Joseph L. Perkins
Attorney

P. W. HENRY.

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Witnesses

M. E. Fowler
S. M. M. M. M.

Philip W. Henry

By Joseph L. Adams
Attorney

UNITED STATES PATENT OFFICE.

PHILIP W. HENRY, OF NEW YORK, N. Y., ASSIGNOR TO THE BARBER
ASPHALT PAVING COMPANY, OF SAME PLACE.

APPARATUS FOR REPAIRING ASPHALT PAVEMENTS.

SPECIFICATION forming part of Letters Patent No. 574,681, dated January 5, 1897.

Application filed May 25, 1895. Serial No. 550,706. (No model.)

To all whom it may concern:

Be it known that I, PHILIP W. HENRY, of the city, county, and State of New York, have invented certain new and useful Improvements in Apparatus for Repairing Asphalt Pavements, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce a comparatively simple, economical, and effective apparatus for applying heat to the surface of pavements composed of asphalt or similar material in order to soften the material of a spot to be repaired in a manner well understood in the art.

In the accompanying drawings, Figure I is a side elevation of one form of embodiment of my invention. Fig. II is a plan view thereof. Fig. III is an end view of the same. Fig. IV is a plan view of a modified form of my heater. Fig. V is a section of the line 5 5 of Fig. IV. Fig. VI is an end view of the heater, looking toward the forward part. Fig. VII is a side elevation of another modification. Fig. VIII is a plan view thereof. Fig. IX is an end elevation of the same.

Referring to the figures on the drawings, 1 indicates the bed, body, box, or fuel-basket of my apparatus. It may be constructed in any suitable manner, of any non-combustible material, preferably iron, and may be made in the form of a comparatively shallow oblong receptacle, as illustrated. Its distinctive feature is that it is provided with an open-work or perforated bottom. This may consist of the perforated or reticulated fabric 2, as shown in Figs. I, II, and III of the drawings, or of ordinary grate-bars 3, lying upon cross stay-rods 4, as shown in the remaining figures of the drawings. It is immaterial what form of open-work is adopted, since the object is to permit the radiation from a mass of incandescent fuel in the basket through the bottom against a pavement.

The purpose of my invention being to produce a portable heater having a fuel-basket, which is vertically adjustable to and from a pavement, I provide wheels 5, which support the body or basket upon a suitable frame.

The number of wheels is not material, nor is

the shape, size, and character of the frame essential. For example, in Figs. I to III, inclusive, of the drawings the frame consists of an arch 6, which may be made up of suitable pipe-sections and angles, and which is provided with axles 7 for carrying one pair of wheels. The body or basket, as illustrated in those figures, is supported by chains 8, wrapping around an axle 9, supported in bearings 10 in the frame.

11 indicates a crank for operating the axle 9, by means of which the body may be raised and lowered, as required. As a suitable, simple, and convenient means of fixing the position of adjustment of the body, I provide a ratchet-wheel 12, fixed to the axle 9, and a pawl 13, pivoted, as indicated at 14, to a handle-bar 15. The handle-bars are two in number, and are united by a cross-piece 16 at the forward end, which affords a means for hauling the heater from place to place, and also affords means of support for the legs 17, whereby the frame 6 is prevented from tilting upon its axle 7. To hold the body level, I provide chains 18, secured to it at its forward end, and wrapping around an axle 19, carried in bearings 20 in the opposite handle-bars. This axle is also provided with a crank 21, a ratchet 22, and a pawl 23, pivoted, as indicated at 24, to one of the handle-bars. By this means the body may be kept suspended in the horizontal position to correspond with the degree of adjustment effected by the supporting-chains 8.

In Figs. IV to VI the body part itself is incorporated into a supporting-frame and is provided with journal-brackets 25 at its rear end and a bracket 26 at its forward end. They are revolvably secured, respectively, to squared eccentric axles 27 and 28. On account of the eccentricity of the axles they may be adapted to sustain the body elevated, as indicated in full lines in the figures referred to, or lowered, as indicated in dotted lines therein. For securing the axles in the fixed position the mechanism illustrated in Figs. IV to VI, inclusive, is suitable, simple, and well adapted for the purpose. It consists, with respect to the rear axle, of arms 29, pivoted, respectively, at indicated at 30, to the sides of the body,

each being provided with a hook 31, which fits the squared part of the axle and prevents its rotation.

With respect to the front axle the box 26 is provided with a vertical swivel-pin 32, which is sustained in the upright position by a rectangular frame 33.

Movably secured to the pin are two stirrups 34, which fit over the squared axle 28 and which, being united by a cross-piece 35, prevent the rotation of the axle in the box 26, but when the stirrups are removed the axle may be readily adjusted to the required position. Draft-hooks 36 afford means for transporting the heater.

In Figs. VII to IX, inclusive, I have shown still another modification of the embodiment of my invention. The body is shown as carried between an inclosing frame 37. This form is supported by four wheels 5, carried in suitable swivel caster-frames 38, located approximately at the four corners of the frame 37. Near its opposite end the frame 37 is provided with boxes 39, in each pair of which is journaled an axle 40, and each axle is provided with a ratchet 41 and a controlling-pawl 42, pivoted to the frame 37. To the axles 40 are secured at one end chains 43, which are fastened at the other end, as indicated at 44, to the bottom of the fuel basket

or body. By means of the axles 40 and the chains 43 the basket may be raised or lowered as required and the axles may be adjusted to required positions by means of the ratchet 41 and pawl 42.

From the foregoing specification and description of the various modifications of the form of embodiment of my invention contained therein it will appear that the details of the invention are susceptible of wide variation.

What I claim is—

In a heating apparatus for softening asphalt pavements, the combination with a portable supporting-frame, of an open fuel-basket adapted to contain a bed of solid incandescent fuel, and having a perforated bottom through which the lower surface of the bed of fuel is exposed, and adjustable suspension devices which permit the fuel-basket to be lowered in close proximity to the surface of the pavement, or raised to clear the ridges of the pavement in transporting the apparatus, substantially as set forth.

In testimony of all which I have hereunto subscribed my name.

PHILIP W. HENRY.

Witnesses:

J. C. ROCK,

C. K. ROBINSON.