

(No Model.)

F. A. HETHERINGTON.
MELTING KETTLE FOR PREPARING ASPHALT.

No. 606,011.

Patented June 21, 1898.

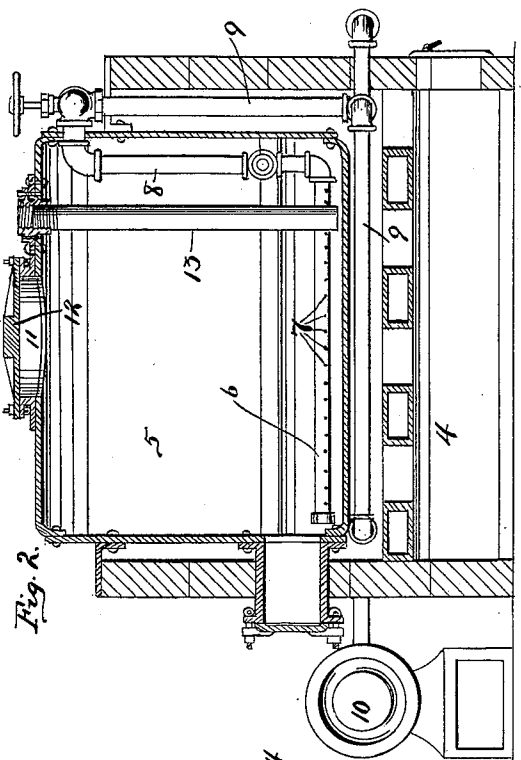


Fig. 2.

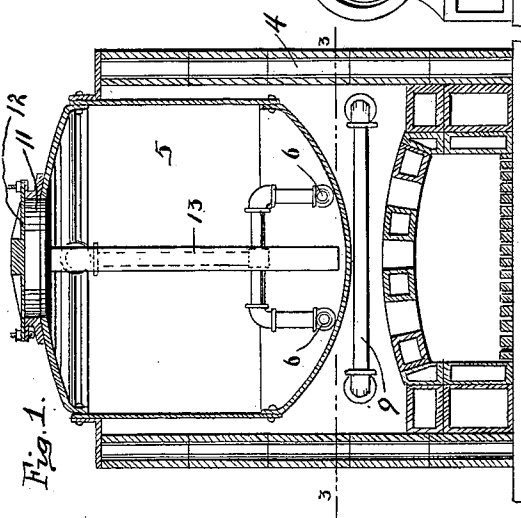


Fig. 1.

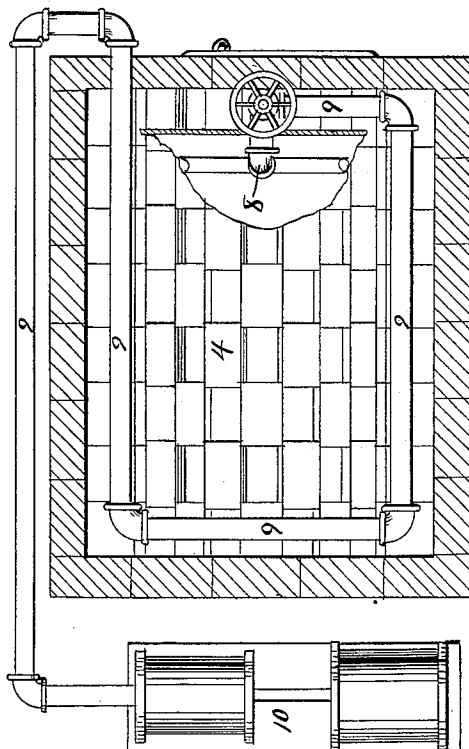


Fig. 3.

Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK A. HETHERINGTON, OF INDIANAPOLIS, INDIANA.

MELTING-KETTLE FOR PREPARING ASPHALT.

SPECIFICATION forming part of Letters Patent No. 606,011, dated June 21, 1898.

Application filed June 24, 1897. Serial No. 642,073. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK A. HETHERINGTON, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Melting-Kettle for and Method of Preparing Asphalt, of which the following is a specification.

My invention relates to an improved melting-kettle for and method of preparing asphalt and other like material for paving purposes.

The object of my invention is to provide an improved method and means for carrying it out whereby asphalt and other like paving materials may be quickly melted and properly mixed without danger of burning or overheating.

The accompanying drawings illustrate my invention.

Figure 1 is a transverse vertical section of my improved kettle. Fig. 2 is a longitudinal vertical section thereof. Fig. 3 is a sectional plan on line 3 3 of Fig. 1.

In the drawings, 4 indicates a furnace-setting, in which is mounted a kettle 5. Mounted within kettle 5, near the bottom thereof, are pipes 6, which extend practically the entire length of the kettle and are provided with a series of holes 7. Connected to pipes 6 and extending upward therefrom is a pipe 8, which is passed out through the side of the kettle and is connected by any suitable series of pipes 9 with an air-compressor 10. Pipes 9 are led through the furnace in such position that the air therein will become heated as it passes through. Kettle 5 is provided at its upper side with an opening 11, through which the asphalt may be introduced and the kettle may be made air-tight by means of a head 12, which may be secured over opening 11. Extending down into the kettle, close to the bottom thereof, is a discharge-pipe 13.

The operation is as follows: The asphalt in its usual market condition is placed within kettle 5. Air is then forced through pipes 9, 8, and 6. As the air passes through pipes 9 it becomes heated, and as it passes out through holes 8 into the kettle it is sufficiently hot to melt the asphalt, but not hot enough to burn it. As the asphalt melts it runs to the bottom of the kettle and gradually surrounds pipes 6 and closes the lower end of the discharge-pipe. The hot air is then forced through holes 8 and rises through the asphalt, thus agitating and thoroughly mixing it. After the asphalt has become thoroughly melted and properly stirred by the passage of the hot air cover 12 is secured over opening 11. A further supply of air passes up through the asphalt and gathers in the top of the kettle, and thus forces the asphalt out through the discharge-pipe.

It will be understood that in the above-described construction the kettle need not be mounted within a furnace-setting and that the entire melting heat may be supplied through the pipes 6. By the introduction of heated air into the kettle the asphalt is more evenly heated and is constantly agitated, so that it cannot become burned.

I claim as my invention—

In a melting-kettle, the combination with the kettle, a suitable setting therefor containing a furnace, means for producing a blast of air or other gas, a pipe leading from said means around within said furnace and into the kettle, the said pipe discharging near the bottom of the kettle, a discharge-pipe leading from near the bottom of the kettle, and means for rendering the kettle air-tight, substantially as described.

FREDERICK A. HETHERINGTON.

Witnesses:

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