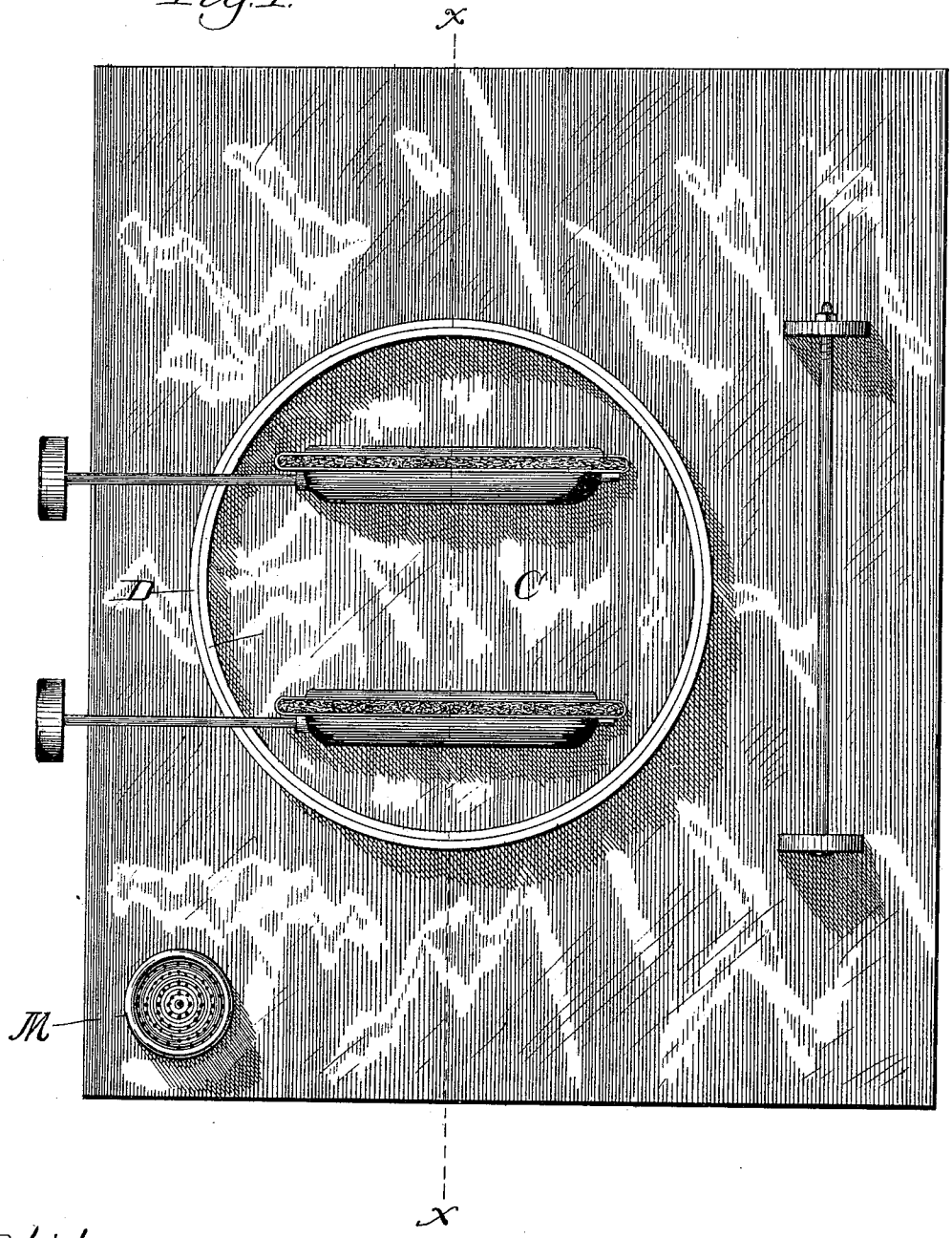
(No Model.) 3 Sheets—Sheet 1.

J. F. TROUT.

OIL BURNING STOVE.

No. 332,307. Patented Dec. 15, 1885.

Fig. 1.



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(No Model.)

3 Sheets—Sheet 2.

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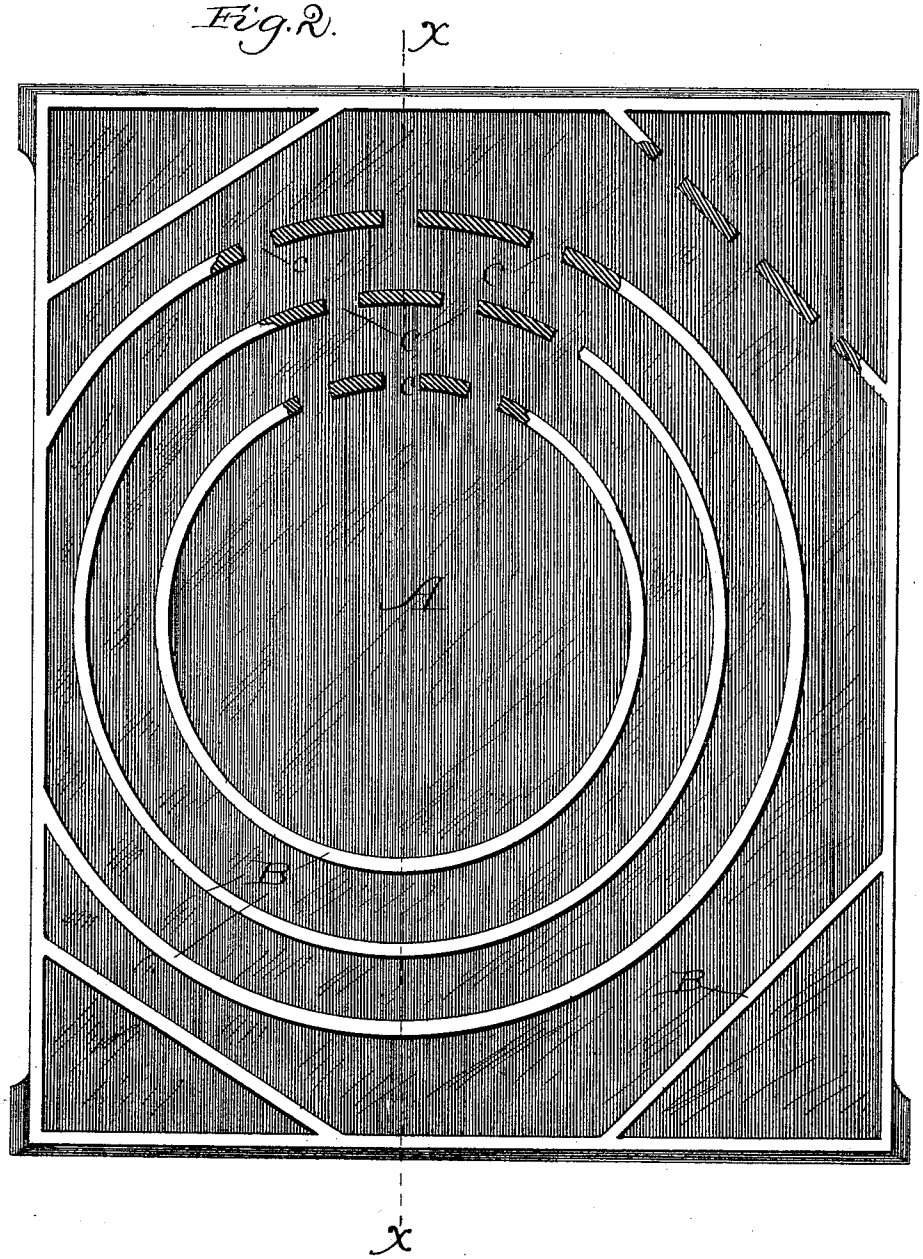
Fig. 2.



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(No Model.) 3 Sheets—Sheet 3.

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OIL BURNING STOVE.

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Fig. 3.

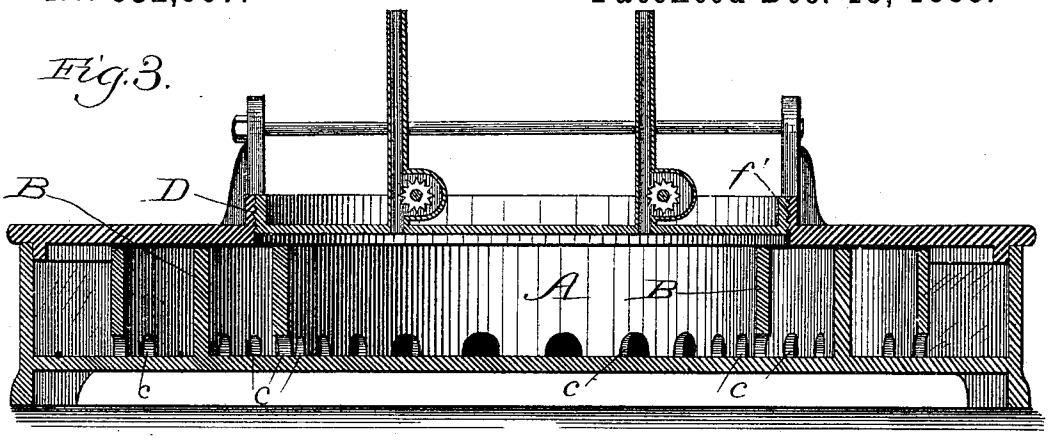
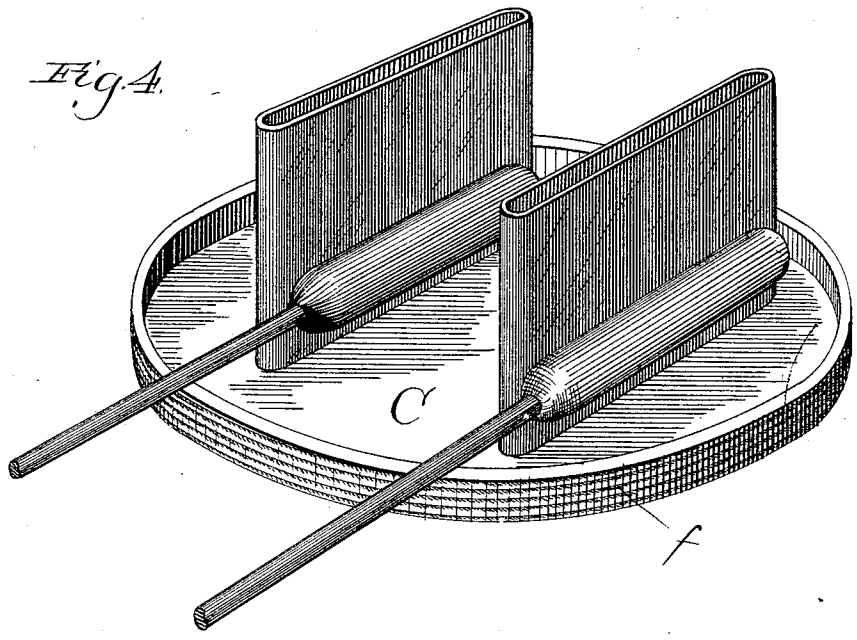


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN F. TROUT, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO ROBERT BARRY, OF SAME PLACE.

OIL-BURNING STOVE.

SPECIFICATION forming part of Letters Patent No. 332,307, dated December 15, 1885.

Application filed May 26, 1884. Serial No. 132,809. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. TROUT, a citizen of the United States, residing at the city of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Oil-Burning Stoves; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which this invention appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference and identification, forming a part of this specification.

My invention relates more particularly to the oil-reservoir of such stoves and to stoves designed principally to be used upon railroad-cars when in rapid motion of travel; and the object of my invention is to confine the oil entirely, without leakage or displacement, in the oil-reservoir, except when consumed by the flame of the wick, and to prevent any injurious movement of the oil in the reservoir when the cars are in rapid momentum of travel.

Figure 1 is a plan or top view of the oil-reservoir. Fig. 2 is a plan view with the upper plate or top of the reservoir removed. Fig. 3 is a vertical central sectional view upon lines X X. Fig. 4 is a perspective view of my wick-plate device.

Similar letters indicate corresponding parts.

A represents the oil-reservoir.

B represents the dividing-partitions or oil-brakes.

c c represent openings therein for the passage or flow of the oil.

D represents the circular screw-threaded flanged opening in the top of the reservoir to receive and hold the wick-bearing plate C. (Shown in Fig. 3.)

f f' are screw-threaded flanges upon periphery of wick-plate and circumference of opening. Heretofore in all practical oil-burning stoves this wick-tube-plate device has been fastened to the top plate of the oil-reservoir by screws or clamps, and packing has been thus necessitated of some description to prevent the escape of the oil from between the joints, and also the screws become loose or easily displaced, and thus permit an additional escape of oil.

It is essential in the use of oil-burning stoves upon cars or boats in rapid motion that there should be no escapement of oil, and that there should be but little movement of oil in the reservoir, so that the flame may be entirely constant and steady. To accomplish this end is the object of this invention; and to this purpose I construct a circular wick-tube-holding plate, solidly put together without screws or rivets, and having a flange of about a half an inch in width on its periphery, this flange being screw-threaded. I construct a circular opening in the top of the oil-reservoir with a continuous flange upon its circumference of about the width of the flange of the wick-plate device. This flange is also screw-threaded, so that my circular screw-threaded wick-bearing plate can be firmly screwed and held therein, and in this manner prevent all displacement or leakage of oil, but at the same time permitting the wick-bearing plate to be easily unscrewed for adjustment of the wicks, or for an interior examination of the oil-reservoir.

To prevent displacement or movement of the oil in the reservoir by any violent or rocking motion of the cars, I surround the lower portion of the oil-absorbing wicks in the reservoir with circular chambers, the first or smaller being approximately near the circumference of the screw-threaded wick-bearing device, and extending about the height between the top and bottom sides of the reservoir. A series of several of these walls, a short distance apart, encircle the wicks in the reservoir, and short straight walls may be put across the four corners. The purpose of not having these walls extend quite to the top of the oil-reservoir is to leave a small space for the escape of the air contained in the inner compartments to the vent-opening M. Otherwise, if the walls extended to the top without this intervening space, a sudden flow of oil into the wick-chamber would compress the air therein and force it up through the wick, causing unequal combustion and the production of smoke. Preferably at the lower or bottom sides of these oil guards or walls I make small openings. These openings in these oil guards or brakes should alternate with each other, and care should be taken that they are not all near together or opposite to each other. In this manner the movement of the oil when the cars are in mo-

tion is so regulated as not to be injurious or perceptible in the use of the stove.

I do not wish to confine myself to the exact specific form of construction herein shown and described, as it can readily be seen that a skillful mechanic may vary therefrom without changing the nature of my invention—as, for example, the entire oil-reservoir may be round instead of square, and in such case the entire top of the reservoir may be the wick-bearing plate, and be screw-threaded, as described. It can readily be seen, also, that the internal guards or oil-brakes may be arranged square or diagonal and still retain the distinctive features of my invention.

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

1. In an oil-burning stove, the combination, with the oil-reservoir, of a series of oil-brake partitions perforated at their lower portions and imperforate above, the perforations of each partition alternating in position with those of its neighbor in the series, and the several partitions extending from the bottom of the oil-reservoir nearly to its top, substantially as shown and described.

2. In an oil-burning stove, the combination, with the oil-reservoir, of a series of oil-brake partitions perforated at their lower portions and imperforate above, the perforations of each partition alternating in position with those of its neighbor in the series, and the several partitions being arranged concentrically to each other, and extending from the bottom of the reservoir nearly to its top, substantially as shown and described.

3. In an oil-burning stove, the combination, with the oil-reservoir, of a series of oil-brake partitions perforated at their lower portions and unperforated above, the several partitions extending from the bottom of the oil-reservoir nearly to its top, the said reservoir being provided with an air-vent, substantially as shown and described.

JOHN F. TROUT.

Witnesses:
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