

JOSEPH PECKOVER.

Fire-Place or Franklin-Stove.

No. 127,265.

Patented May 28, 1872.

Fig.1.

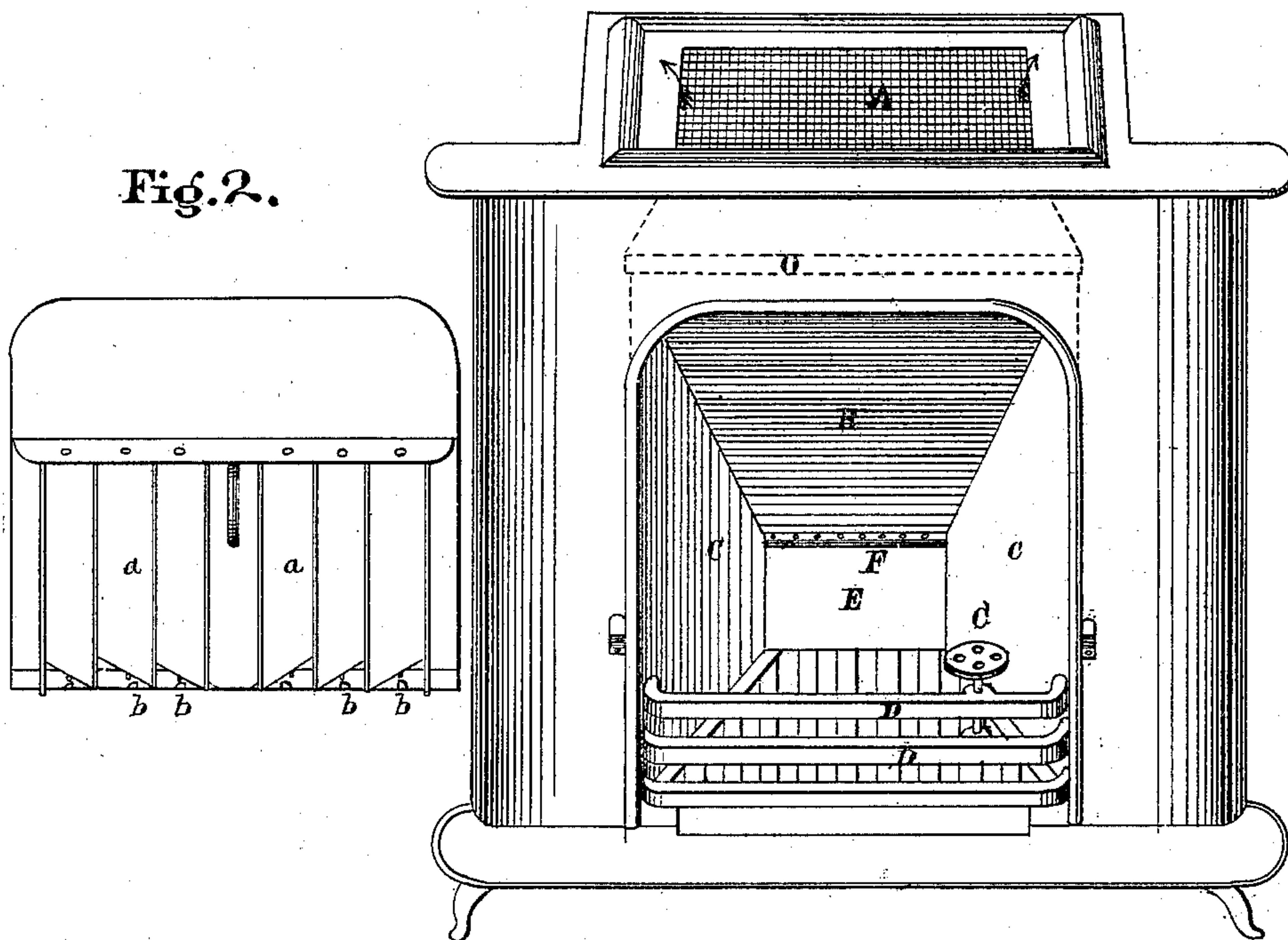
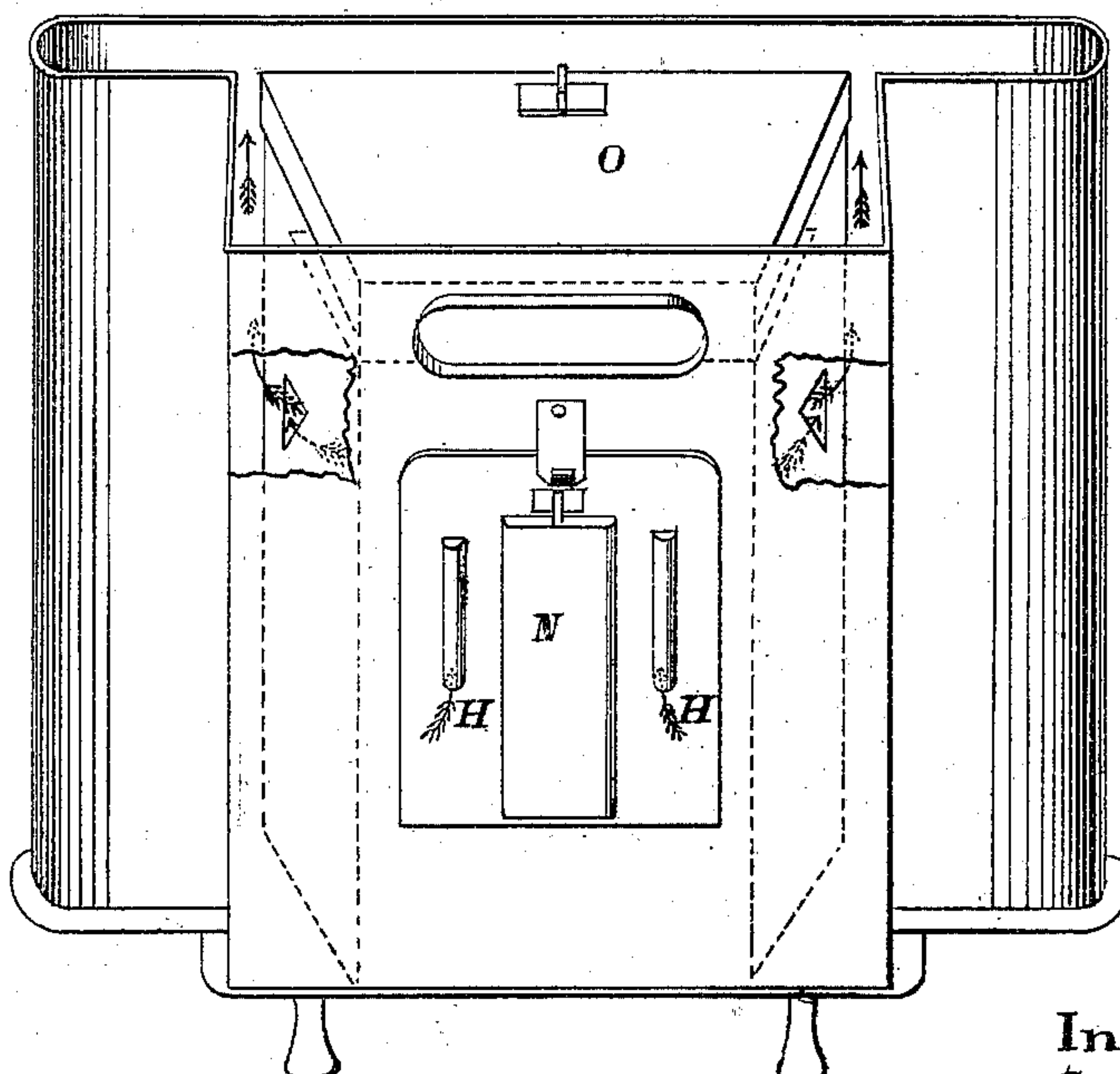


Fig.3.



Attest
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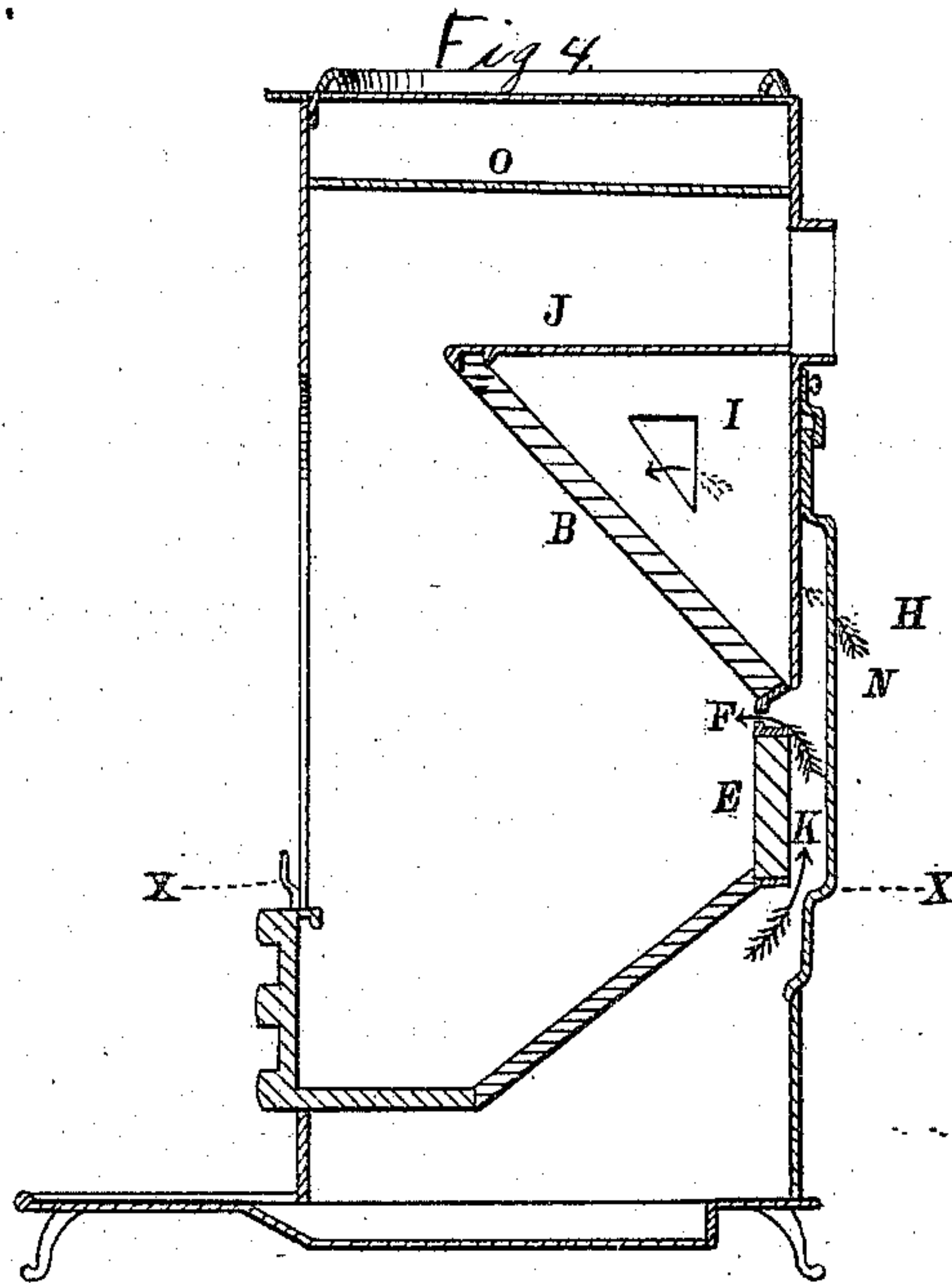
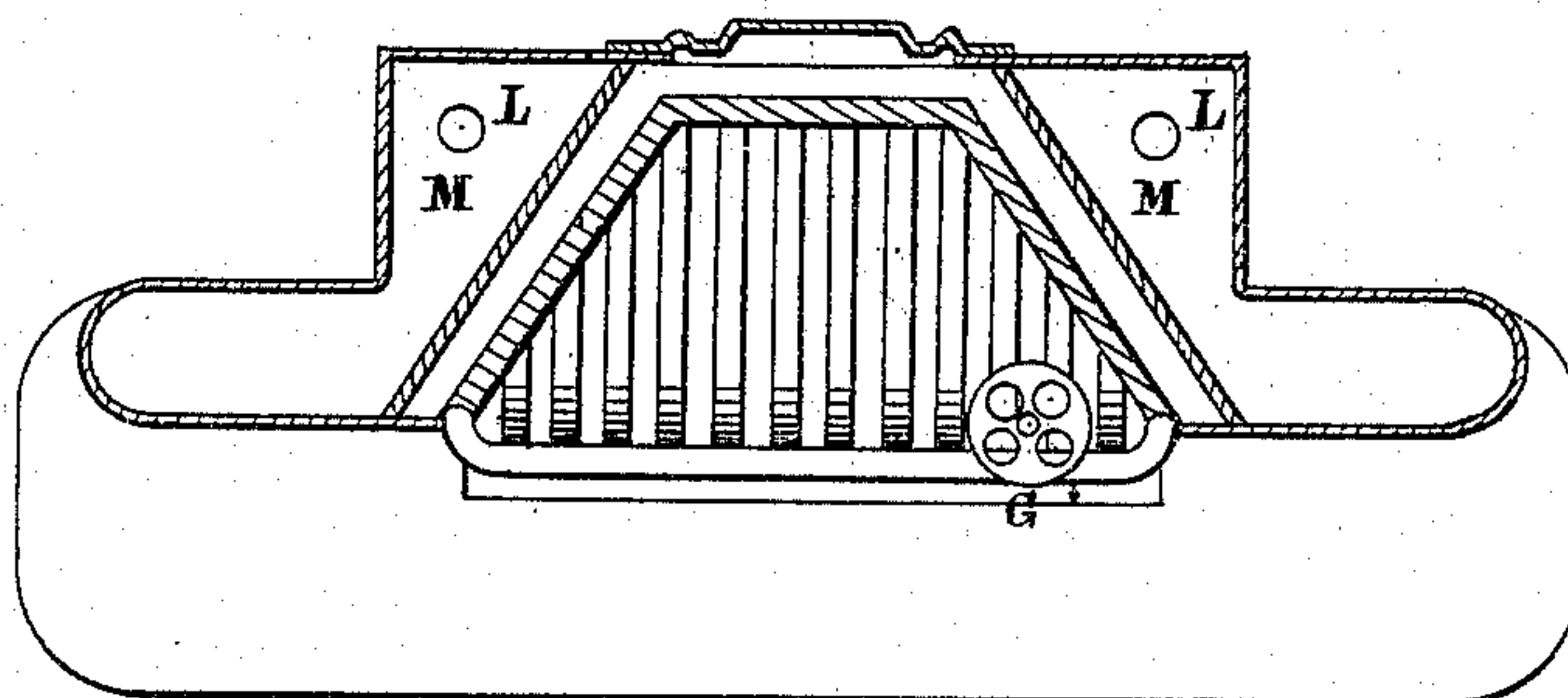


Fig. 5.



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JOSEPH PECKOVER, OF CINCINNATI, OHIO.

IMPROVEMENT IN FIRE-PLACES OR FRANKLIN STOVES.

Specification forming part of Letters Patent No. 127,265, dated May 28, 1872.

I, JOSEPH PECKOVER, of the city of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Open Stoves, of which the following is a specification:

My invention, including several minor improvements of general application, consists particularly in such a combination of air-chambers, channels, and reservoirs as will best conduct a continuous current of warm air up through a perforated top on the stove.

In the accompanying drawing consisting of two plates, and forming part of this specification, Figure I is a front view of my stove, showing the perforated top. Fig. II is a slatted blower. Fig. III is a rear view, in perspective, of the stove with the perforated top reversed and part of the back broken out to show the course of the air-currents. Fig. IV is a central vertical horizontal section of the stove. Fig. V is a longitudinal cross-section of the same through the plane indicated by lines X X of Fig. IV.

A is the removable perforated top. B is an inclined brick fire-plate, forming, with the upright fire-back E, an angle corresponding to the angle described between the inclined bottom bars of the grate-basket and the upright fire-back E. C C are the angular side plates of the fire-place, forming, with the inclined top plate, a complete combination of reflectors. F is a cast-iron tuyere located between the inclined plate B and the fire-back E. G is a revolving trivet with its standard inserted into perforated lugs on the upper grate-bars, being thus attached to the grate in a simple, cheap, and durable manner. H H are air-chambers in the backs of the stove, which conduct air into the reservoir I, inclosed between the angular plate B, the back of the grate, and an adjustable top plate, J. This plate J is constructed with two parallel flanges, forming a recess into which the top of plate B fits closely, so as to exclude the smoke from the reservoir I. K is an air-chamber at the rear of the stove, communicating by a channel with the recess under the grate-bars, from whence it receives air and supplies it to the tuyere F. L are openings in the base of the stove through which the air is conducted into the recess M contained between the angular side plates C C

and the exterior sides of the stove. N is a removable panel in the rear of the stove, containing the air-chamber K, and is removable for the purpose of repairing the linings of the grate. Fig. II represents a slatted blower, the slats *a* of which are either longitudinal or vertical, and may be turned to regulate the draught, but are prevented from turning entirely round by the stops *b b*. O is a plate near the top of the grate, which covers completely the fire-place, and shuts off all communication between it and the perforated top A.

The current of hot air is created in the following manner: The cold air passes up through the channels H H into the reservoir I, where it is heated by coming into direct contact with the hot plate B, which is directly over the fire. The heated air then passes out through orifices in the sides of the reservoir, Fig. III, into the recesses M, whence it ascends and passes out through the perforated top A. Co-operating with this current of air is another current coming up through the openings L in the base of the grate into the recesses M, where, in its ascending contact with the heated side plates C C of the grate, it becomes heated and rises through the top A. Thus the entire surface in contact with the fire is surrounded by an ascending current of cold air, which, in its ascent, absorbs the heat and conveys it into the room. The tuyere F, communicating with the air-chamber and the fire-place, is used to conduct hot air to mingle with the products of combustion while they are intensely heated in the fire-place, which greatly facilitates their combustion. If unconsumed, these gases pass off as volatile carbon or smoke.

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

1. A grate with the upper front bars perforated to hold a trivet, substantially as described.
2. The combination of the inclined bottom bars, the vertical fire-back, the inclined fire-back, and the angular sides C C, all bounded by right lines, substantially as described.
3. The air-passages H, in combination with the reservoir I, the recesses M extending from the bottom of the stove to the top of the smoke-flue plate, and the perforated top A, substantially as and for the purposes specified.

4. The triangular reservoir I formed by the inclined fire-brick plate B, top J, and vertical back, and provided with induction-flues H H in the back, and eduction-flues I I at the ends of said reservoir, for the purposes specified.

5. The horizontal top plate J, with flanges forming a recess into which the top of the inclined plate B fits, for the purposes specified.

6. A blower with revolving slats, to regulate the draught, substantially as described.

7. The loose panel back, containing the air-chamber K and air-tubes H H, substantially as shown.

JOSEPH PECKOVER.

Witnesses:

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