

G. H. WADSWORTH.

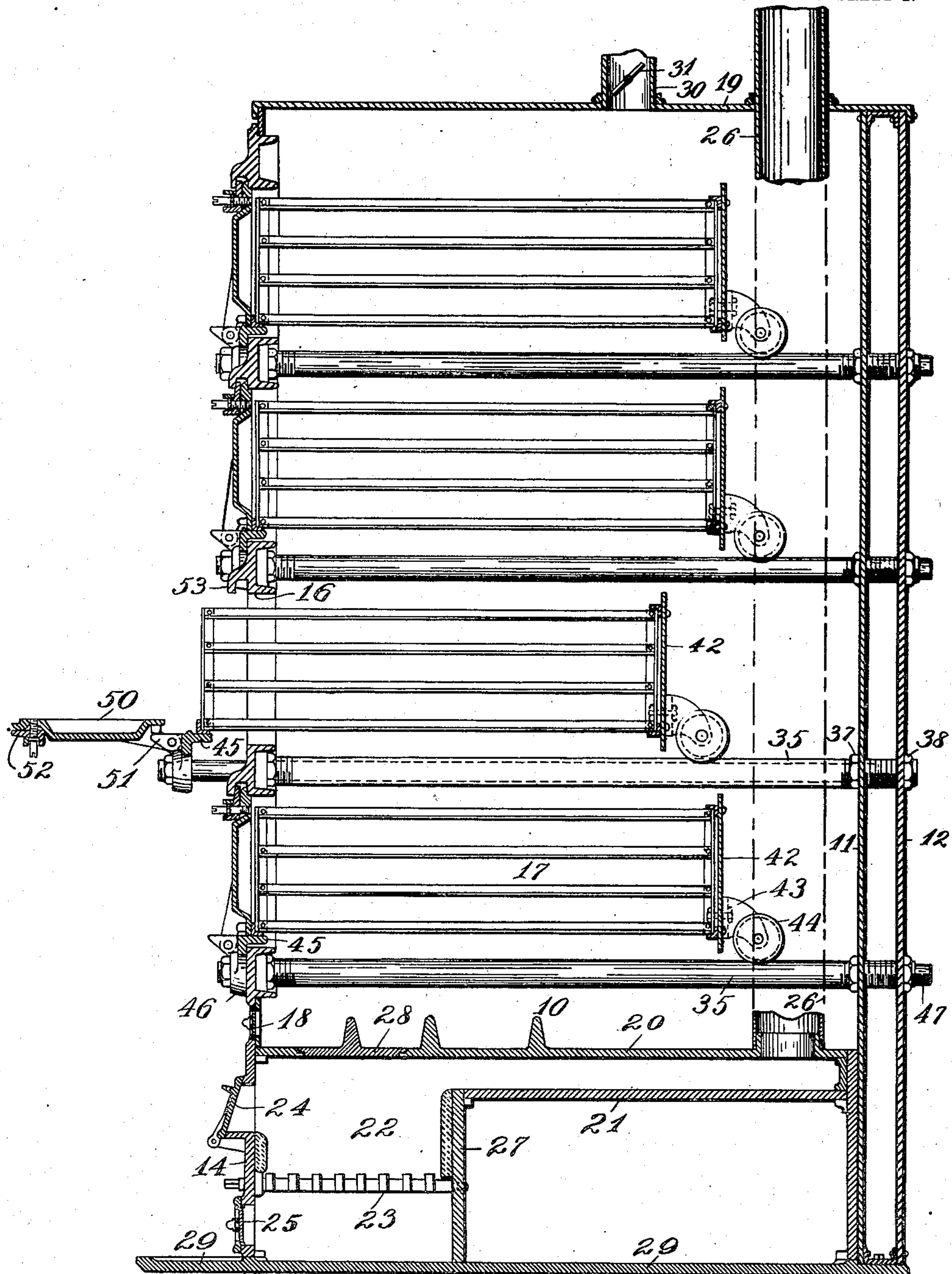
CORE OVEN.

APPLICATION FILED MAY 2, 1907.

Patented Mar. 23, 1909.

2 SHEETS—SHEET 1.

916,069.



WITNESSES:

Bremer & West.
Nathan F. Fetter.

FIG. 1

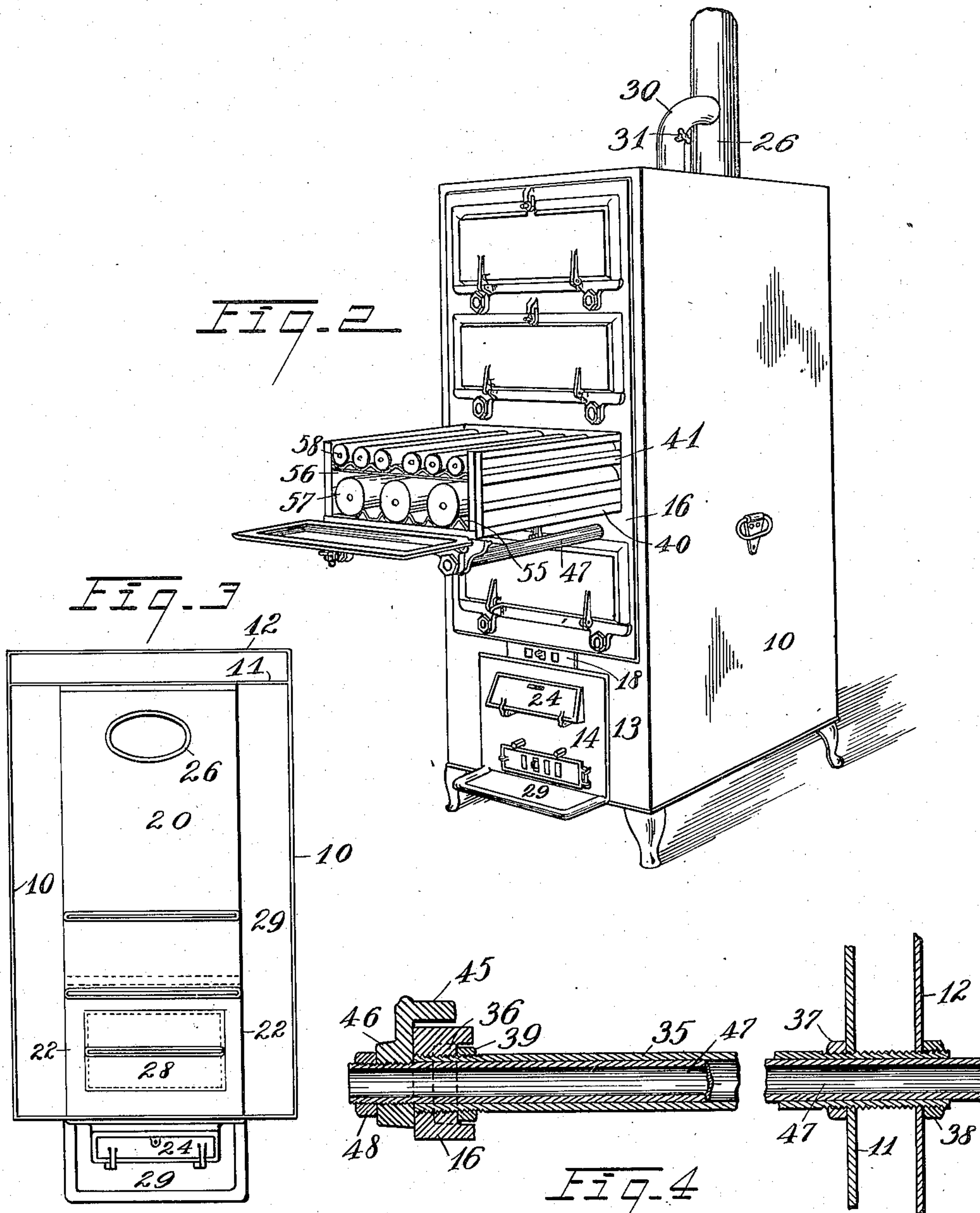
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Brennan West,
Nathan F. Fretten

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UNITED STATES PATENT OFFICE.

GEORGE H. WADSWORTH, OF CUYAHOGA FALLS, OHIO.

CORE-OVEN.

No. 916,069.

Specification of Letters Patent.

Patented March 23, 1909.

Application filed May 2, 1907. Serial No. 371,383.

To all whom it may concern:

Be it known that I, GEORGE H. WADSWORTH, a citizen of the United States, residing at Cuyahoga Falls, in the county of Summit and State of Ohio, have invented a certain new and useful Improvement in Core-Ovens, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

The object of this invention is to provide a simple and efficient receptacle or cabinet for holding various articles. The cabinet has a series of drawers or slidable shelves upon which the articles are supported and is arranged so as to facilitate access to the interior of the drawers and to permit the easy manipulation thereof, even though the articles contained may be of considerable weight. The drawers carry rollers at their rear ends which ride upon stationary tubes and, telescoping with these tubes, are rods supporting the front end of the drawers. It is intended to use this cabinet in connection with a heating device to form an oven in which cores may be dried. The drawers are so constructed that when pulled out, the rear end of the drawer closes the opening and thus prevents the escape of heat.

In the drawings, Figure 1 is a vertical section of my oven. Fig. 2 is a perspective thereof. Fig. 3 is a horizontal section just above the fire box. Fig. 4 is a detail in vertical section parallel with Fig. 1, showing the telescoping tubes.

In the drawings, my cabinet is shown as having a sheet metal casing. The sides of this casing are designated 10, its double back 11 and 12, and a partial front portion 13. In this front portion is set the front plate 14 of the fire box, while above this fire box is the front plate 16, which carries the front ends of the drawers 17. The plate 16 is preferably of cast iron and covers substantially the entire front of the oven down to a point slightly above the fire box.

Below the front plate 16 and above the fire box plate 14 is a suitable air damper 18. The fire box rests on the casing bottom 29, and is provided with a top plate 20, sides 22, an under plate 21, providing a flue, a back plate 27, and a grate 23. There is an entrance door 24, an ash door 25, and a cleaning door 28. A smoke pipe 26 (broken out in Fig. 1) extends from the fire box out of the top 19 of the casing.

Extending from the upper end 19 of the

casing is a pipe 30 communicating with the smoke pipe 26 and provided with a damper 31. The cores being carried in the space above the fire box, it will be understood that the heat rising from the fire box will dry these cores and the moisture will pass up the pipe 30 into the smoke pipe. The dampers 18 and 31 regulate this draft and enable the amount of drying to be conveniently controlled.

The front plate 16 is provided with a series of openings through which the drawers 17 pass. Extending from front to back of the furnace beneath these openings are the tubes 35, there being two tubes for each opening. These tubes are preferably screw-threaded at their front ends into the front plate 16 (which has a reinforcing boss 36 at this point) and at their rear ends the tubes pass through the two plates 11 and 12 of the oven back, being locked in place by the two nuts 37 and 38 screwing onto the tube and bearing against these plates. At the front end a suitable nut 39 screws onto the tube and bearing against the boss 36 securely locks the tube at this point. These pairs of tubes for each opening are thus stationary and form rigid braces for the oven from front to back.

The drawers are provided with a suitable bottom 40, slatted sides 41, and a rear end plate 42. Secured to this rear end are a pair of brackets 43, journaled in which are rollers 44 which ride on the tubes 35. Extending crosswise of the drawer at its front end and secured to it is a strengthening casting 45 which has depending ears 46, to which are secured rods 47 telescoping in the tubes 35. These rods 47 are themselves tubular. They are screw-threaded into the ears 46 and are clamped by jam nuts 48. When the drawer is closed, the tubular rod 47 extends entirely through the tube 35. When the drawer is drawn out this rod draws out with it, supporting the front end of the drawer, as shown in the case of one of the drawers in Figs. 1 and 2. When the drawer is entirely drawn out, the rear end 42 engages with the rear face of the front plate 16 and closes the opening, thus preventing the escape of heat.

To allow the cores to be conveniently placed, I hinge the front plate 50 of the drawer to the front casting 45, so that the front plate may be tipped down into horizontal position, being so supported by lugs 51 carried by the casting 45. When the drawer

is closed, the front plate 50 is turned up vertically and held by a latch 52 thereon, turning behind a lug 53 provided on the front plate.

5 The cores may be properly spaced and supported by suitable sheet metal members 55, bent in a sinuous or ridge form and supported on the bottom of the drawers. If desired, a sheet metal plate or plates may
10 surmount the cores and other cores be placed on top of the plate as illustrated in Fig. 2, where 56 represents such plate, and 57 and 58 the cores below it and above it respectively.

15 When the drawer is loaded with cores, the weight is very considerable and there has been difficulty heretofore in easily closing the drawer. With my device, however, this difficulty does not arise, for suitable
20 bars may be inserted in the tubes 47 as handles, and the front end of the drawer lifted slightly to relieve the downward pressure at the front end of the tubes, whereupon the drawers may be easily rolled back into
25 their closed positions,—the most of the weight being carried by the rollers 44 and only a convenient portion of it by the operator. The action is thus similar to that of a wheel barrow, and it may be said that each
30 drawer in closing thus constitutes a wheelbarrow, with the corresponding advantages.

My oven is simple and inexpensive in construction; it is adapted to carry a large supply of cores and allows them to be conveniently put in the drawers and moved into
35 place. When closed, the supports for the front end of the drawers, telescoping into the stationary tubes, leave no awkward and unsatisfactory projections. The arrangement of the pipes and dampers enables the
40 heat to be controlled as desired, and when the cores are baked, they are removed with the same ease with which they were put in place.

45 While I have disclosed my cabinet for use as a core drier, it is quite evident that its use is far more extensive, for it may be utilized to contain articles which are dried either with heated air or cold air as may be desired, and generally speaking, may be used
50 to support articles for any purpose whatsoever.

Having thus described my invention, I claim:

55 1. In a core oven, the combination of a casing, a drawer adapted to slide in and out of the casing, a tube carried by the casing below the drawer, a roller carried by the drawer riding on said tube, and a rod below the
60 drawer telescoping with the tube and adapted to support the front end of the drawer.

2. In a core oven, the combination of a casing, a series of drawers located one above the other, a pair of stationary tubes extend-
65 ing from front to back of the casing below

each drawer, and rods carried by the front ends of the drawers and telescoping within said tubes.

3. In a core oven, the combination of a casing, there being a chamber near the lower 70 end thereof, a series of drawers located one above the other, a pair of stationary tubes extending from front to back of the casing below each drawer, a pipe extending upward from the chamber behind the drawers, rods 75 carried by the front ends of the drawers and telescoping with said tubes, and rollers carried by the rear ends of the drawers and riding on said tubes.

4. The combination of a casing having a 80 drawer opening, a stationary tube below the drawer, a roller carried by the drawer riding on said tube, and a rod below the drawer telescoping within said tube and secured in front of the tube to the front end of the 85 drawer.

5. The combination of a casing, a front therefor having drawer openings, a double back, tubes secured to said front and double back, drawers slidable in openings through 90 the front, and rods telescoping in said tubes and secured near their front ends to the drawers.

6. The combination of a casing, a front plate for the casing, said plate having a plu- 95 rality of drawer openings, drawers slidable in said openings and having depending members at their front, rearwardly projecting rods secured to said depending members, and stationary members within the casing, within 100 which said rods telescope.

7. The combination of a casing, a front plate for the casing above the fire box, said plate having a plurality of drawer openings, drawers slidable in said openings and having 105 depending members at their front, rearwardly projecting rods secured to said depending members, and stationary tubes within the casing, within which said rods telescope, and rollers on the rear ends of the 110 drawers riding on said rods.

8. The combination of a casing, a drawer slidable therein, a roller and support adapted to carry the rear end of the drawer, and tubular supporting rods carrying the front end of 115 the drawer, whereby handles may be inserted in said rods to give the drawer a wheelbarrow effect.

9. The combination of a casing, stationary tubes carried thereby, drawers having rollers 120 riding on said tubes, and movable tubular rods telescoping with the tubes and secured near their front ends to the drawers.

10. The combination of a casing, stationary horizontal tubes carried within the cas- 125 ing, drawers having rollers riding on said tubes, and movable tubular rods telescoping with the tubes and secured at their front ends to the drawers.

11. The combination of a casing, a front 130

plate for the casing having drawer openings, stationary tubes extending from front to back of the casing below said drawer openings, drawers having rollers riding on said tubes, members depending from the drawers at their front ends, and tubular rods secured to said members and telescoping with the stationary tubes.

12. The combination of a casing, stationary tubes extending from front to back of the casing, drawers having rollers riding on said tubes, members depending from the drawers at their front ends, tubular rods secured to said members and telescoping with the stationary tubes, and fronts for the doors hinged to the members which carry the tubular rods.

13. In a core oven, the combination of a casing, a drawer adapted to slide in and out, a track in said casing supporting the front end of the drawer, and a roller carried by the drawer engaging the track.

14. The combination of a casing having a drawer opening, a drawer adapted to move in and out through said opening, said drawer having a bottom and slatted sides, a stationary tube carried by the casing, a roller carried by the drawer at its rear end and riding on said tube, and a rod telescoping within said tube and secured in front of the tube to the front end of the drawer and adapted to support such front end when the drawer is drawn outwardly.

15. The combination of a casing having a drawer opening, a drawer movable therein and having a back adapted to close the opening when the drawer is drawn outwardly and having a front adapted to close the opening when the drawer is forced inwardly, said front being hinged adjacent to its lower edge to swing open downwardly, a tube carried by the casing, a roller carried by the drawer riding on said tube, and a rod telescoping within said tube and secured in front of the tube to the front end of the drawer below the hinged portion thereof.

16. The combination of a casing having a drawer opening, a drawer movable therein and having a front formed in two parts, one of which is hinged to the other, a stationary

tube and a rod telescoping within the tube and secured in front thereof to one of the front portions of the drawer whereby the drawer may be drawn outwardly and this hinged front may also be swung.

17. The combination of a casing, a series of drawers, one above the other, adapted to occupy the casing, stationary tubes carried by the casing below the drawers respectively, rollers carried by the drawers riding on the tubes, rods slidable in the tubes and secured at their front ends to the lower portion of the drawer front, and hinged doors for the fronts of the drawers, said doors being hinged to the said lower portion and adapted to be turned down horizontally or turned up vertically, and means for holding the doors substantially horizontal when turned down.

18. The combination of a casing, heating means therein, stationary horizontal tubes carried within the casing, drawers having rollers riding on said tubes, and movable tubular rods telescoping with the tubes and secured at their front ends to the drawers.

19. In a core oven, the combination of a casing a fire box near the lower end thereof, a series of drawers located one above the other above the fire box, a pair of stationary tubes extending from front to back of the furnace below each drawer, and rods carried by the front ends of the drawers and telescoping within said tubes.

20. In a core oven, the combination of a casing, a fire box near the lower end thereof, a series of drawers located one above the other above the fire box, a pair of stationary tubes extending from front to back of the furnace below each drawer, a smoke pipe extending upward from the fire box behind the drawers, rods carried by the front ends of the drawers and telescoping with said tubes, and rollers carried by the rear ends of the drawers and riding on said tubes.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

GEORGE H. WADSWORTH.

Witnesses:

ALBERT H. BATES,
W. L. MCGARRELL.