

No. 639,646.

Patented Dec. 19, 1899.

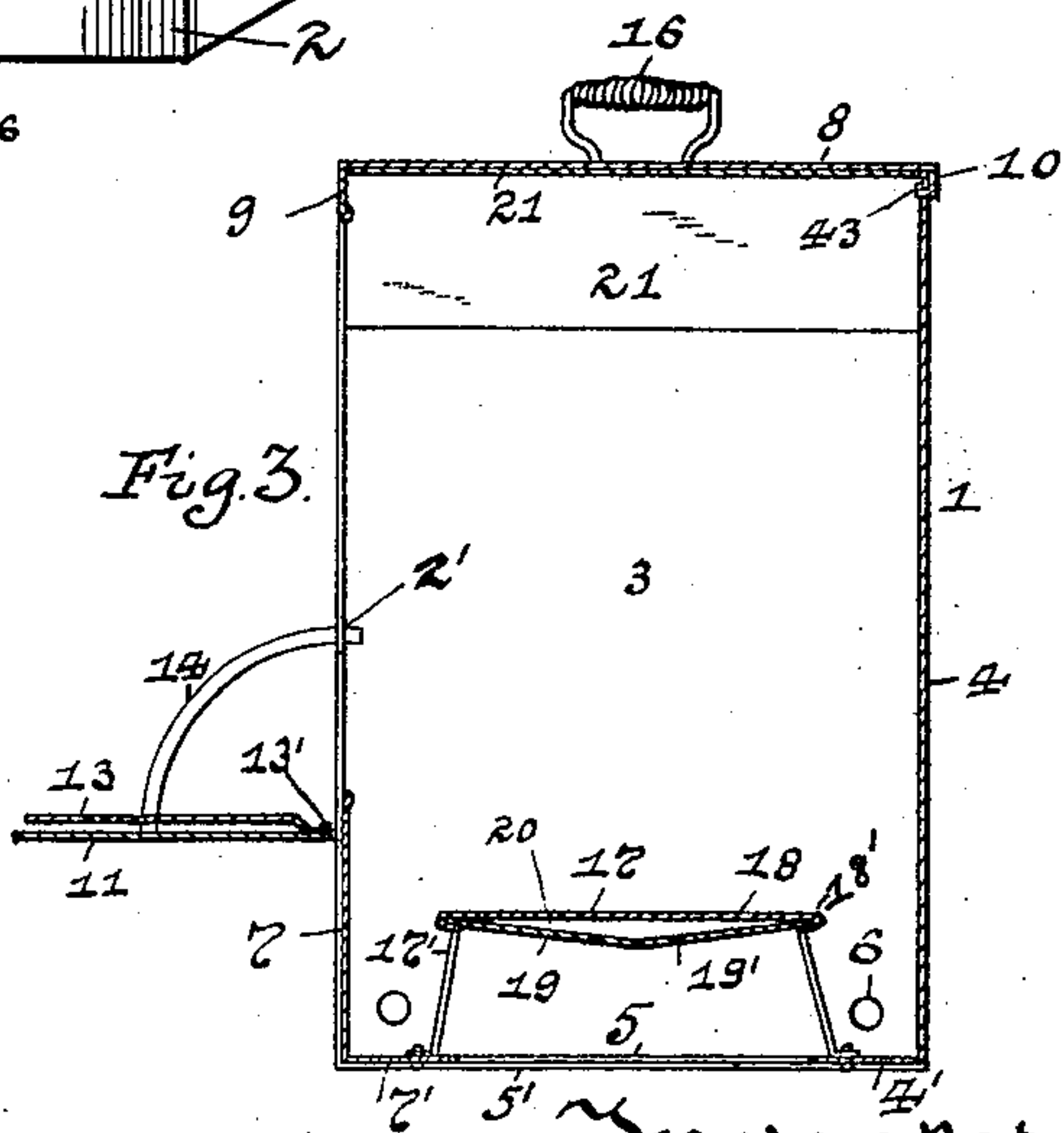
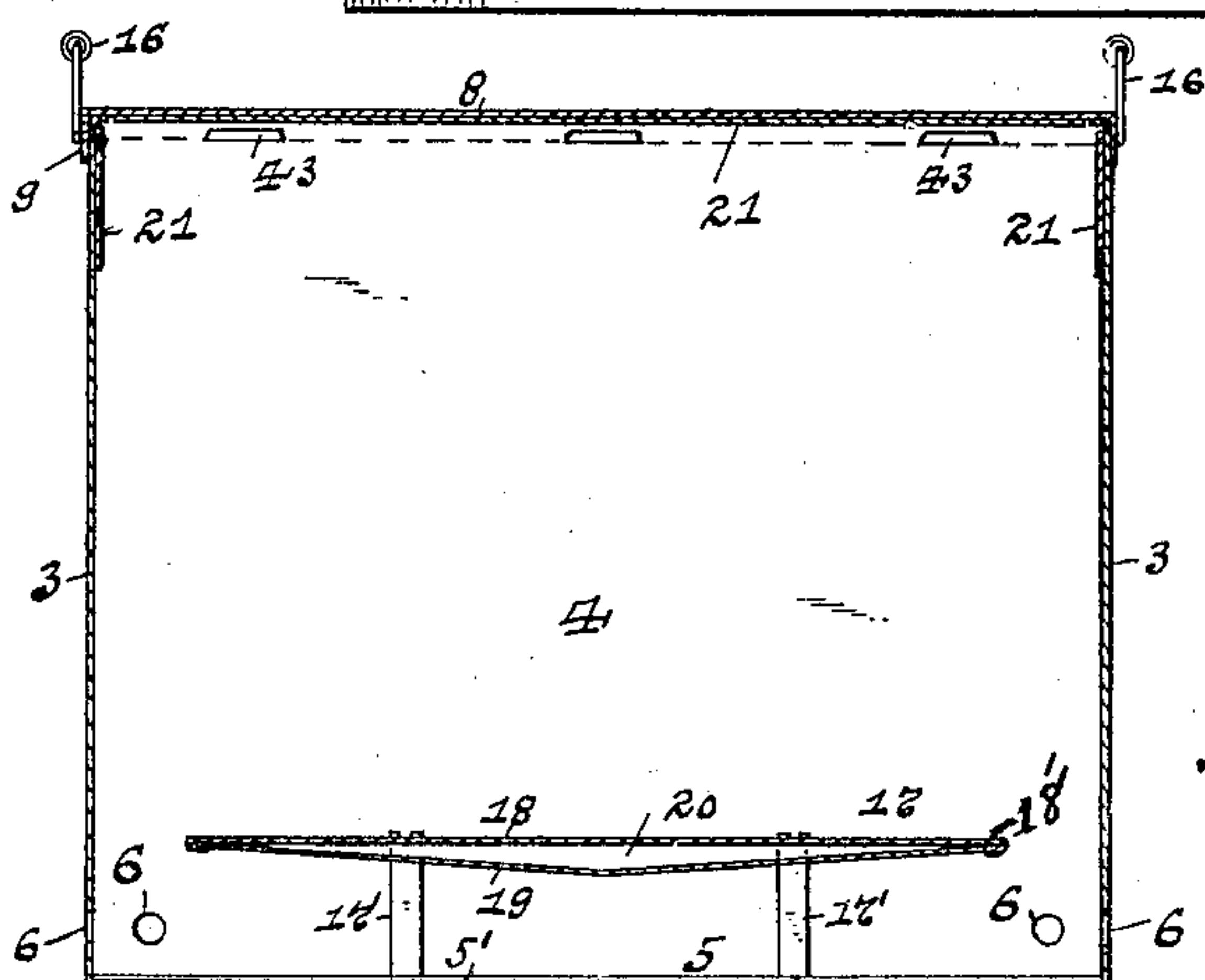
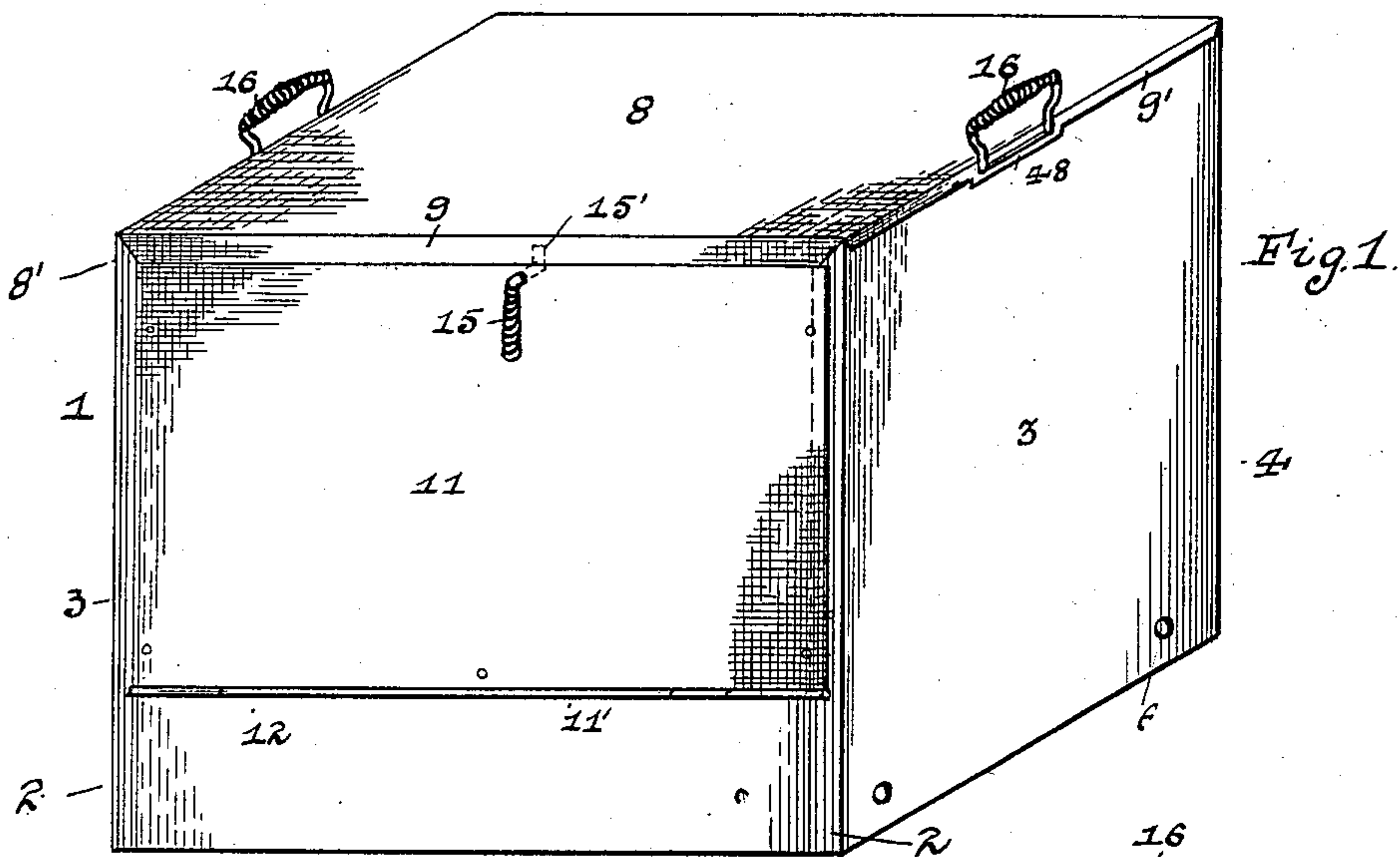
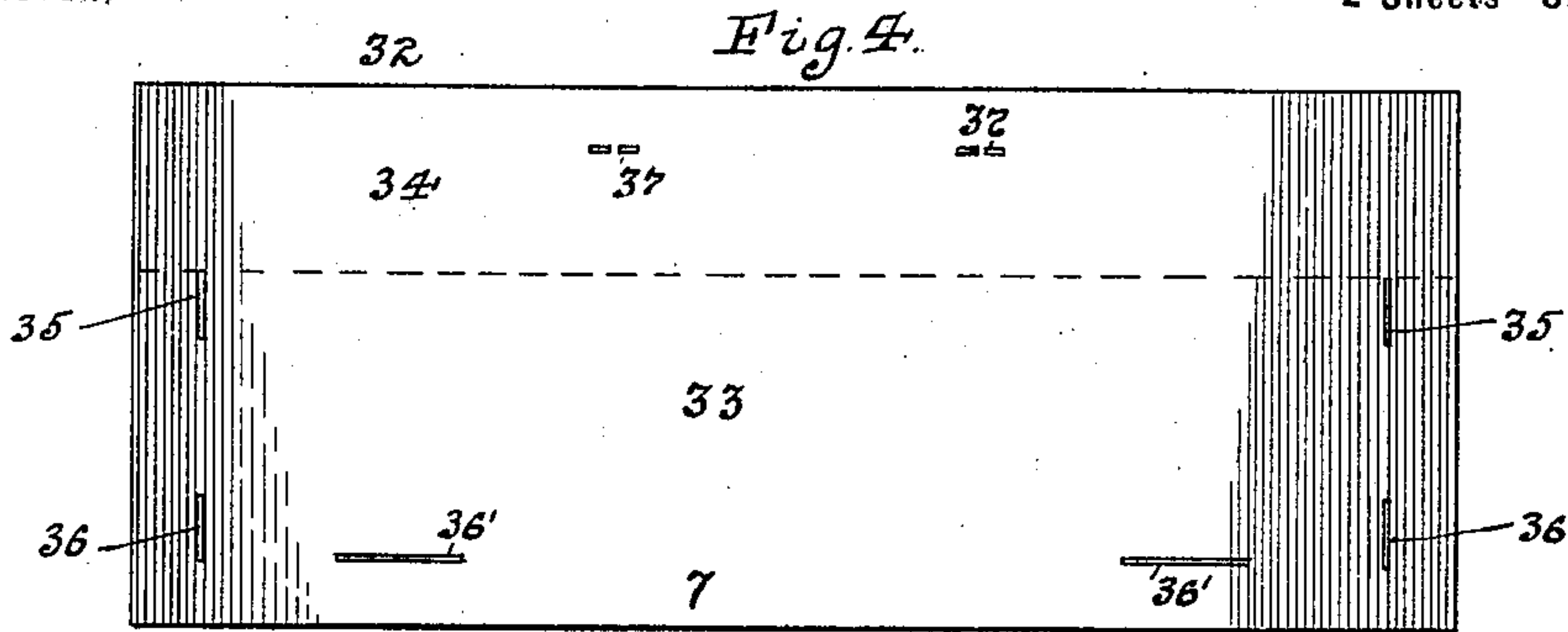
H. ADLER.

OVEN.

(Application filed June 10, 1899.)

(No Model.)

2 Sheets—Sheet 1.



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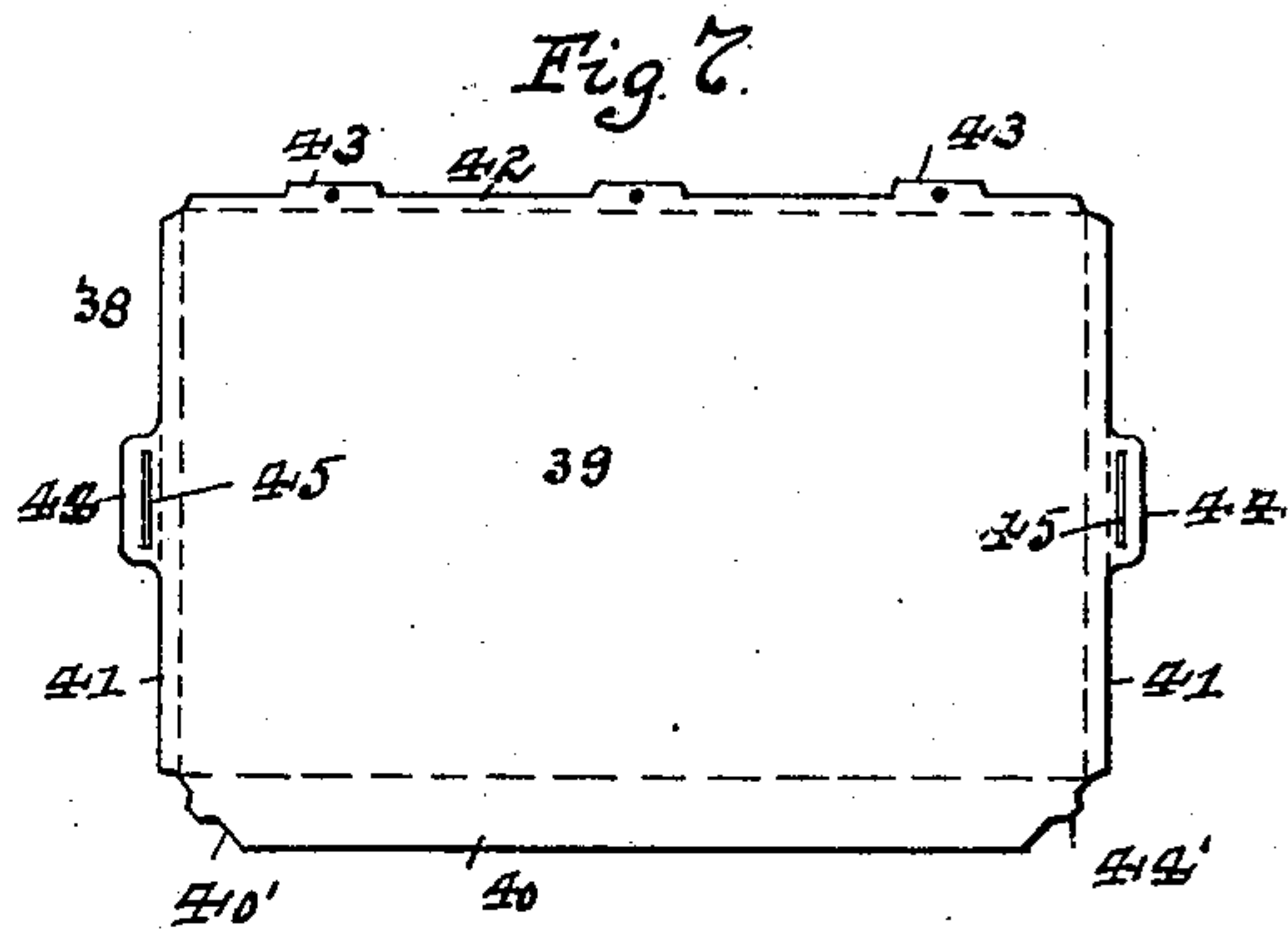
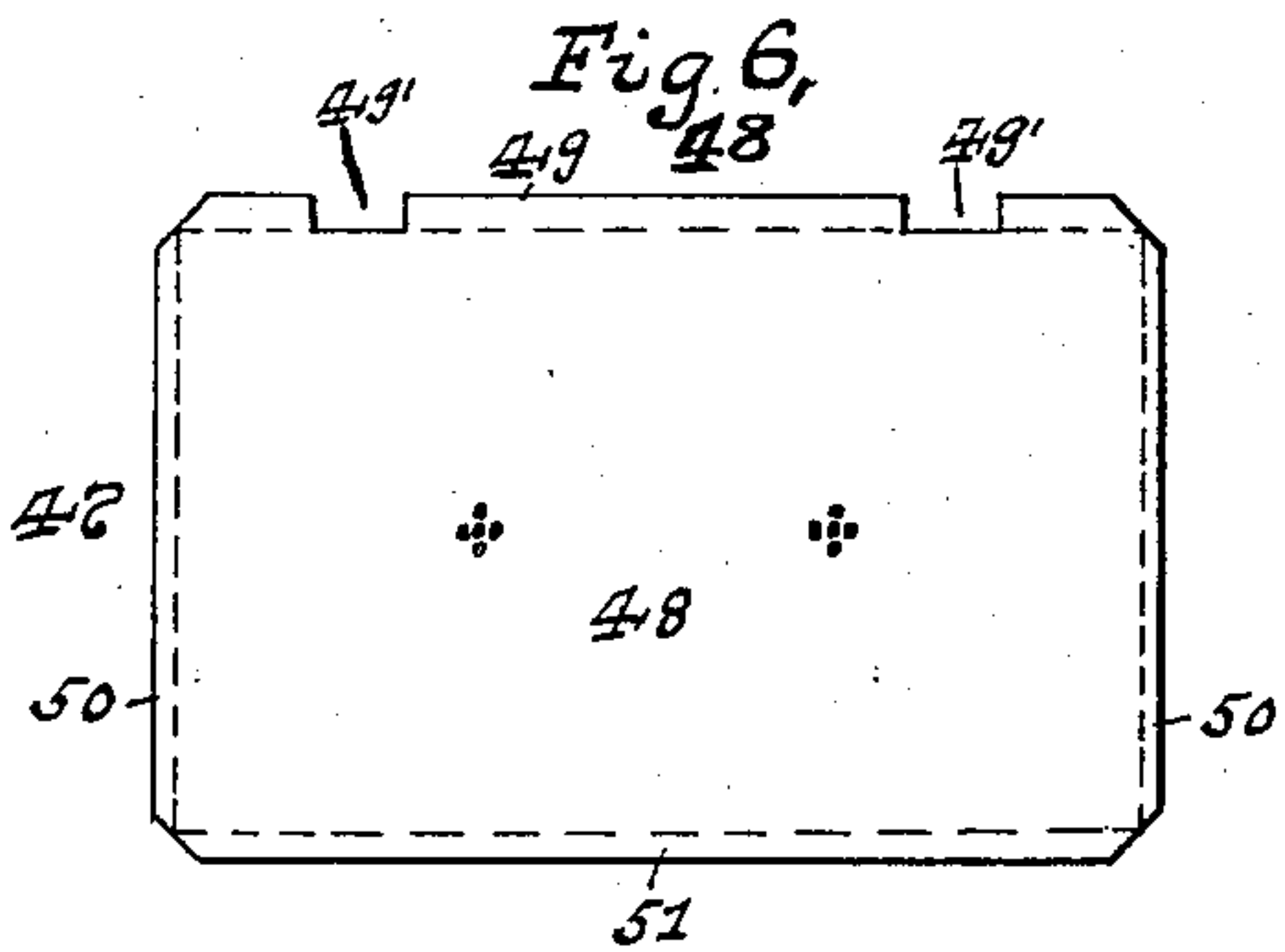
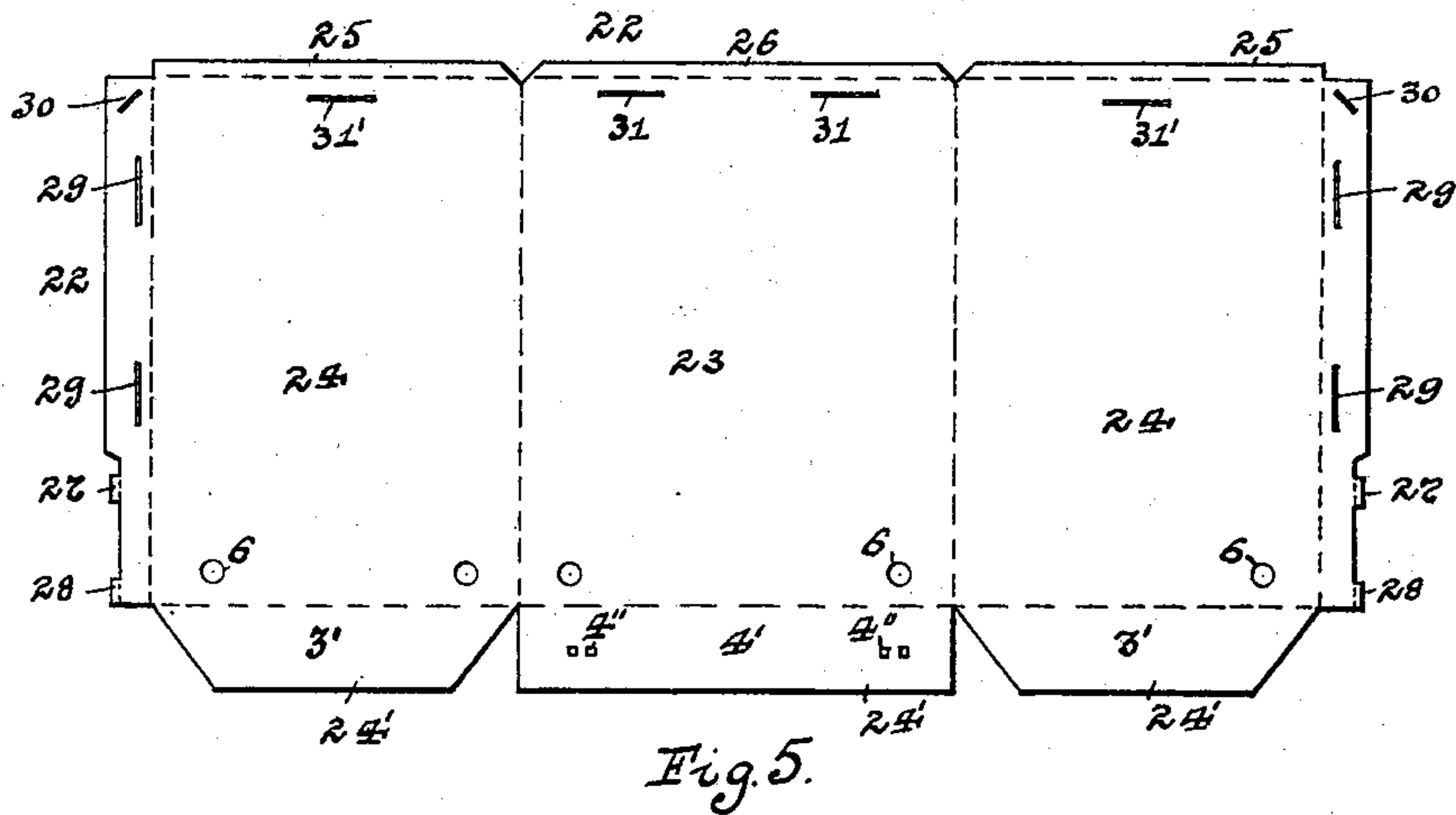
Patented Dec. 19, 1899.

H. ADLER.
OVEN.

(Application filed June 10, 1899.)

(No Model.)

2 Sheets—Sheet 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

HENRY ADLER, OF ALLEGHENY, PENNSYLVANIA.

OVEN.

SPECIFICATION forming part of Letters Patent No. 639,646, dated December 19, 1899.

Application filed June 10, 1899. Serial No. 720,021. (No model.)

To all whom it may concern:

Be it known that I, HENRY ADLER, a citizen of the United States, residing at Allegheny, State of Pennsylvania, have invented a new and useful Improvement in Ovens, of which the following is a specification.

My invention relates to portable ovens for use on vapor, gas, and other stoves, and has for its object to provide a cheap and durable oven which can be formed from sheet metal in a rapid and easy manner and in as few parts as possible, so overcoming the use of joints, as well as one which is neat and simple in its appearance.

My invention consists, generally stated, in the novel arrangement, combination, and construction of parts as hereinafter more specifically set forth and described, and particularly pointed out in the claims.

To enable others skilled in the art to which my invention appertains to construct and use the oven, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a perspective view of the oven, showing the door closed. Fig. 2 is a longitudinal section of the same. Fig. 3 is a cross-section thereof. Fig. 4 is an enlarged plan view of the blank for forming the lower front portion and base of the oven. Fig. 5 is a plan view of the blank for forming the back, ends, base, and front panels of the oven. Fig. 6 is a plan view of the blank for forming the door of the oven, and Fig. 7 is a like view of the blank for forming the top and upper front portion of the oven.

Like letters herein indicate like parts in each of the figures of the drawings.

My improved oven 1 is preferably formed from corrugated metal and is provided with the front panels 2 on each side thereof, ends 3, and back 4, which are formed from a single piece of sheet metal, and the ends 3 and back 4 are provided with the flanges 3' and 4' thereon for forming a portion of the bottom 5 of the oven. Openings 6 are also formed in the ends 3 and back 4 for the escape of the heat and fumes from the interior of the oven 1. Secured to the front panels 2 of the oven 1 is the lower front portion 7 of the oven, which is formed from a single piece of sheet metal and is provided with the flange 7'

thereon for forming a portion of the bottom 5 of the oven, said flanges 3', 4', and 7' forming an opening 5' in the bottom 5 of said oven 1. Secured to the front panels 2, ends 3, and back 4 is the cover or top 8, which is formed of a single piece of sheet metal, and is provided with the depending flange 8' thereon for forming the upper front portion 9 of the oven 1. The top 8 is also provided with the flanges 9', which extend down over the ends 3, and the flange 10, which extends down over the back 4 of the oven 1. The door 11 is formed from a single piece of sheet metal and is hinged to the lower front portion 7 of the oven by means of flanges 11', formed thereon, engaging with a rod 12', which is hinged within the hinges 12, held therein and supported by the front portion 7. A lining 13, of tin or sheet metal, is secured to the inner face of the door 11 and is held in place by bent flanges 13', formed on the door 11, and guides 14, formed in circle arcs, are secured at one end on each side of the door 11, the free ends of which are adapted to pass through holes 2' in the front panels 2 of the oven 1. A locking-handle 15 is journaled in the door 11, the lug 15' of which is adapted to engage with the depending flange 8' on the top 8, and handles 16 are journaled in the flanges 9 and ends 3 on each side or end of the oven 1.

A platform 17 is secured on the interior of the oven 1, which is formed of sheet metal and is composed of the upper portion 18 and bottom portion 19, secured to the upper portion 18 by bent flanges 18' formed thereon, said bottom portion 19 provided with air-openings 19' therein for the admission of hot air to the chamber 20 in the platform 17 from the stove or burner through the opening 5' in the bottom 5. The platform 17 is supported by the support or standards 17', which are secured to the flanges 4' and 7' of the bottom 5 and to the upper portion 18 of the platform 17. Asbestos paper 21 is secured to the ends 3 and top 8 on the interior of the oven 1 for permitting these parts to be kept cool.

The blank 22 for forming the front panels 2, ends 3, back 4, and bottom 5 of my improved oven is shown in Fig. 5 and is stamped out of corrugated sheet metal in any suitable manner to form the body portion 23 for the

back 4 and the wings 24 for forming the ends 3 and front panels 2 of the oven. The blank 22 is also provided with the escape-openings 6 therein, and the wing portions 24' have the flanges 3' and 4' for a portion of the bottom 5 of the oven. Flanges 25 and 26 are formed on the wings 24 and body portion 23 of the blank 22, respectively, and lugs 27 and 28 are formed on each panel 2 of the wings 24 on the blank 22. Openings or slits 29 are formed on the panels 2 of the wings 24, and angular openings or slits 30 are formed in the panels 2 at the top of said wings 24 and above the slits 29. Openings or slits 31 and 31' are formed in the body portion 23 and wings 24 of the blank 22, below the flanges 25 and 26, and holes 4'' are formed in the flanges 4' of the blank.

The blank 32 for forming the lower front portion 7 of the oven 1 is shown at Fig. 4 and is stamped out of corrugated sheet metal in the ordinary manner to form the body portion 33 for forming the front 7 and the wing portion 34 thereon for forming the flange 7' of a portion of the bottom 5 of the oven 1. Openings or slits 35, 36, and 36' are formed in the body portion 33, and openings or slits 37 are formed in the wing portion 34 of the body portion 33.

The blank 38 for forming the top or cover 8 of the oven 1 is shown in Fig. 7 and is stamped out of corrugated sheet metal in any suitable manner to form the body portion 39 and the wing portion 40 thereon for the depending flange 8' to form the upper front portion 9 of the oven 1. Flanges 41 and 42 are formed on the ends and back of the body portion 39 and lugs 43 and 44 are formed on the back and ends of the portion 39. The lugs 44 are provided with slits or openings 45 therein, and lugs 44' are also formed on the angular ends 40' of the wing portion 40.

The blank 47 for forming the door 11 of the oven 1 is shown in Fig. 6 and is also stamped from corrugated sheet metal in any desired manner to form the body portion 48 and the wing portion 48' on the lower end thereof for the hinge-flange 49, which is provided with the recesses 49' therein. Flanges 50 are formed on the ends of the body portion 48, and a flange 51 is formed on the top of the body portion 48.

The manner of constructing and operating my improved oven is as follows: The blank 22, after it is stamped, as shown in Fig. 5, is bent to shape to form the front panels 2, ends 3, and back 4, and the flanges 3', 4', and 7' are bent inwardly for forming a portion of the bottom 5 of the oven 1. The blank 32 for forming the lower front portion 7 of the oven is stamped, as shown in Fig. 4, and the wing portion thereon bent inwardly to form the bent flange 7' of the bottom 5 of the oven. After this is done the bent blank 32 can be secured to the panels 2 of the oven by inserting the lugs 27 and 28 on the panels 2 into the openings or slits 35 and 36 in the body or front portion 33 of bent blank 32, when the

lugs 27 and 28 can be bent down against said body portion 33. The top or cover 8 of the oven 1, which has been bent from the blank 38, (shown in Fig. 7,) is then secured to the panels 2, ends 3, and back 4 of the oven 1 by inserting the lugs 44' on the depending flange 8', forming the upper front portion 9 of the oven 1, into the slits or openings 30, formed in the panels 2 and bending said lugs 44' against said panels 2. The lugs 43 on the blank 38 can then be inserted into the openings or slits 31 in the back 4 of the oven 1 and bent against said back 4; but, if desired, bolts or nuts can be secured through these lugs 43 and back 4 to secure the top or cover 8 in place, and so do away with the inserting of the lugs 43 into the slits 31 and bending them against the back 4. The handles 16 are secured within the openings or slits 45 in the lugs 44 of the top or cover 8 and in the openings or slits 31' in the ends 3 of the oven 1. The blank 47 for forming the door 11 of the oven being stamped to the shape shown in Fig. 6 is bent to the desired form and the lining 13 secured thereto by bending the flanges 50 and 51 against said lining 13. The locking-handle and the guides 13' having been attached to said door 11, the door can be secured to the front lower portion 7 of the oven 1 by hinging the same thereto by inserting a rod 12' within the hinge-flanges 49 on the door 11 and within the hinges 12, which fit within the recesses 49' on said hinge-flanges 49 and are bent through the openings or slits 36' on the front lower portion 7 of the oven 1, the door being guided by the guides 13', moving within the holes 2' in the panels formed by the holes 29' in blank 22. The platform 17, formed of the upper portion 18 and bottom portion 19, with its supports 17', can be secured within the oven 1 by inserting the lower ends of said supports 17' within the holes 4'' of the flanges 4' and flange 7' of the bottom 5 and bending said lower ends of the supports 17' against said flanges 4' and 7'. The asbestos paper 21 can be secured to the ends 3 and top 8 either during the process of construction of the oven 1 or after the same is formed, as desired. The oven 1 now being formed it can be placed over a gas, vapor, oil, or other stove and objects placed on the platform 17 therein to be heated for any purpose, so that the heat from the stove used will enter the oven 1 through the opening 5' in the bottom 5 thereof against the objects upon the platform 17, and the heat and fumes from the interior of the oven 1 can escape through the openings 6, located in the ends 3 and back 4.

It will thus be seen that my improved oven is cheap and simple in its construction and can be formed in rapid and easy manner. It is formed of very few parts and does away with the use of joints, bolts, rivets, and other separate connecting parts. Being formed of corrugated sheet metal it is strong and durable, so as not to become warped or affected

by the heat, and presents a neat and finished appearance to the eye.

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

5 1. An oven comprising in its construction a blank of sheet metal having a body portion for forming the back thereof, wing portions on said body portion for forming the ends and front panels of the oven, wing portions on
10 said body portion and said first wing portions for forming the bottom portions of said oven, and a lower front portion formed from a blank of sheet metal having a body portion for forming the front of said oven and provided with
15 a wing portion thereon for forming a bottom portion of said oven.

2. An oven comprising in its construction a blank of sheet metal having a body portion for forming the back thereof, wing portions
20 on said body portion for forming the ends, front panels and bottom portions of the oven, a lower front portion formed from a blank of sheet metal having a body portion for forming the front of said oven and provided with
25 a wing portion thereon for forming a bottom portion of said oven, and a top or cover formed from a blank of sheet metal having a body provided with a wing portion thereon for forming a depending flange for the front of said
30 oven.

3. An oven comprising in its construction a blank of sheet metal having a body portion for forming the back thereof, wing portions on said body portion for forming the ends and
35 front panels of the oven, a lower front portion formed from a blank of sheet metal having openings or slits therein and a body portion for forming the front of said oven, a door formed from a blank of sheet metal having a
40 body portion provided with a wing portion thereon for forming the hinge connection of said door, and recesses in said wing portion of the door for the reception of hinges secured within the openings or slits in the lower front
45 portion.

4. An oven comprising in its construction a blank of sheet metal having a body portion for forming the back thereof, wing portions

on said body portion for forming the ends and front panels of the oven, openings or slits in
50 said wing portions, a top or cover formed from a blank of sheet metal having a body portion provided with flanges thereon for fitting over the ends of said oven and provided with open-
55 ings or slits therein, and handles adapted to be hinged or pivoted in the openings or slits in the wing portions and flanges.

5. An oven comprising in its construction a blank of sheet metal having a body portion for forming the back thereof, wing portions
60 on said body portion for forming the ends and front panels of the oven, wing portions on said body portion and first wing portions for forming the bottom portions of the oven, a lower front portion formed from a blank of
65 sheet metal having a body portion for forming the front of said oven and provided with a wing portion thereon for forming a bottom portion of said oven, holes within the bottom portion of said second wing portions and the
70 wing portion of said lower front portion, and a platform within said oven having supports thereon adapted to be secured within said holes.

6. An oven comprising in its construction
75 a blank of sheet metal having a body portion for forming the back thereof, wing portions on said body portion for forming the ends and front panels of the oven, a lower front portion formed from a blank of sheet metal having a
80 body portion for forming the front of said oven, a door formed from a blank of sheet metal having a body portion provided with a wing portion thereon for engaging with a rod on said door, and hinges engaging with said
85 rod adapted to be secured within openings or slits in said oven.

In testimony whereof I have hereunto set my hand, at Pittsburg, in the county of Allegheny and State of Pennsylvania, this 29th
90 day of May, A. D. 1899.

HENRY ADLER.

Witnesses:

B. F. McELROY,
J. N. COOKE.