

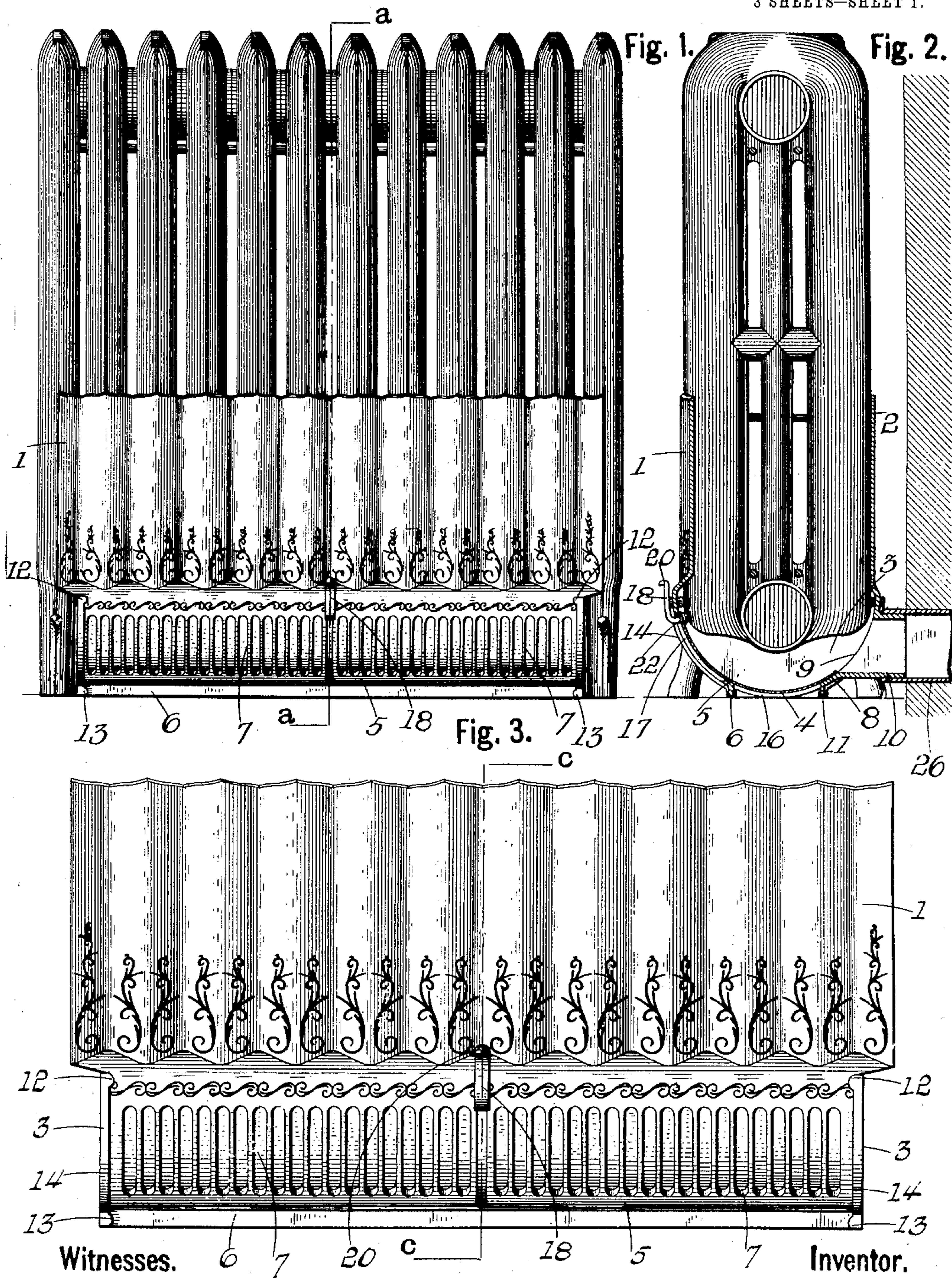
No. 827,093.

PATENTED JULY 31, 1906.

J. F. GEARY.  
BOX BASE FOR RADIATORS.

APPLICATION FILED JUNE 15, 1903.

3 SHEETS—SHEET 1.



Witnesses.

L. M. Sangster  
Geo. A. Neubauer.

By

John F. Geary.  
A. J. Sangster

Attorney.

No. 827,093.

PATENTED JULY 31, 1906.

J. F. GEARY.  
BOX BASE FOR RADIATORS.  
APPLICATION FILED JUNE 15, 1903.

3 SHEETS—SHEET 2.

Fig. 4.

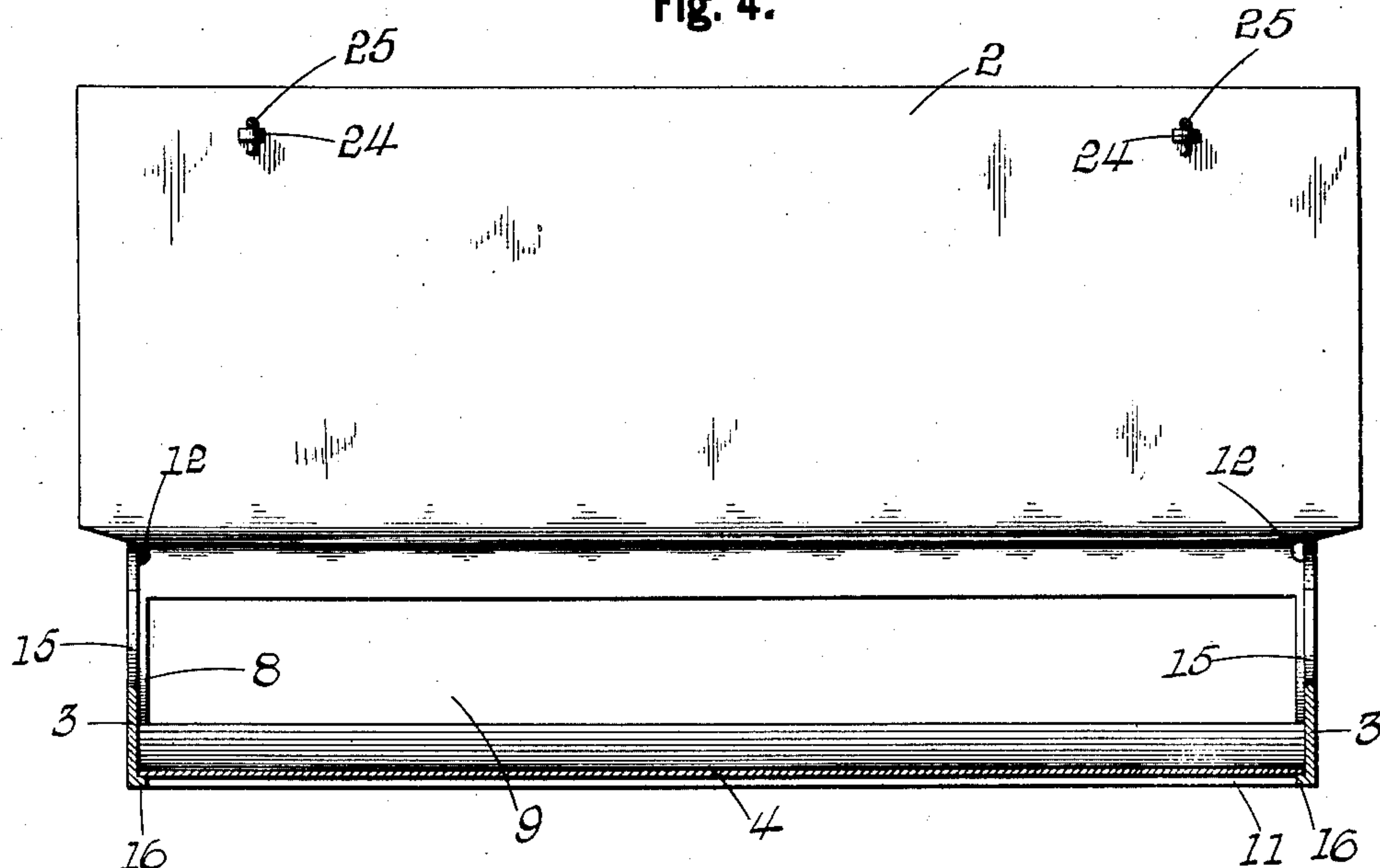


Fig. 5.

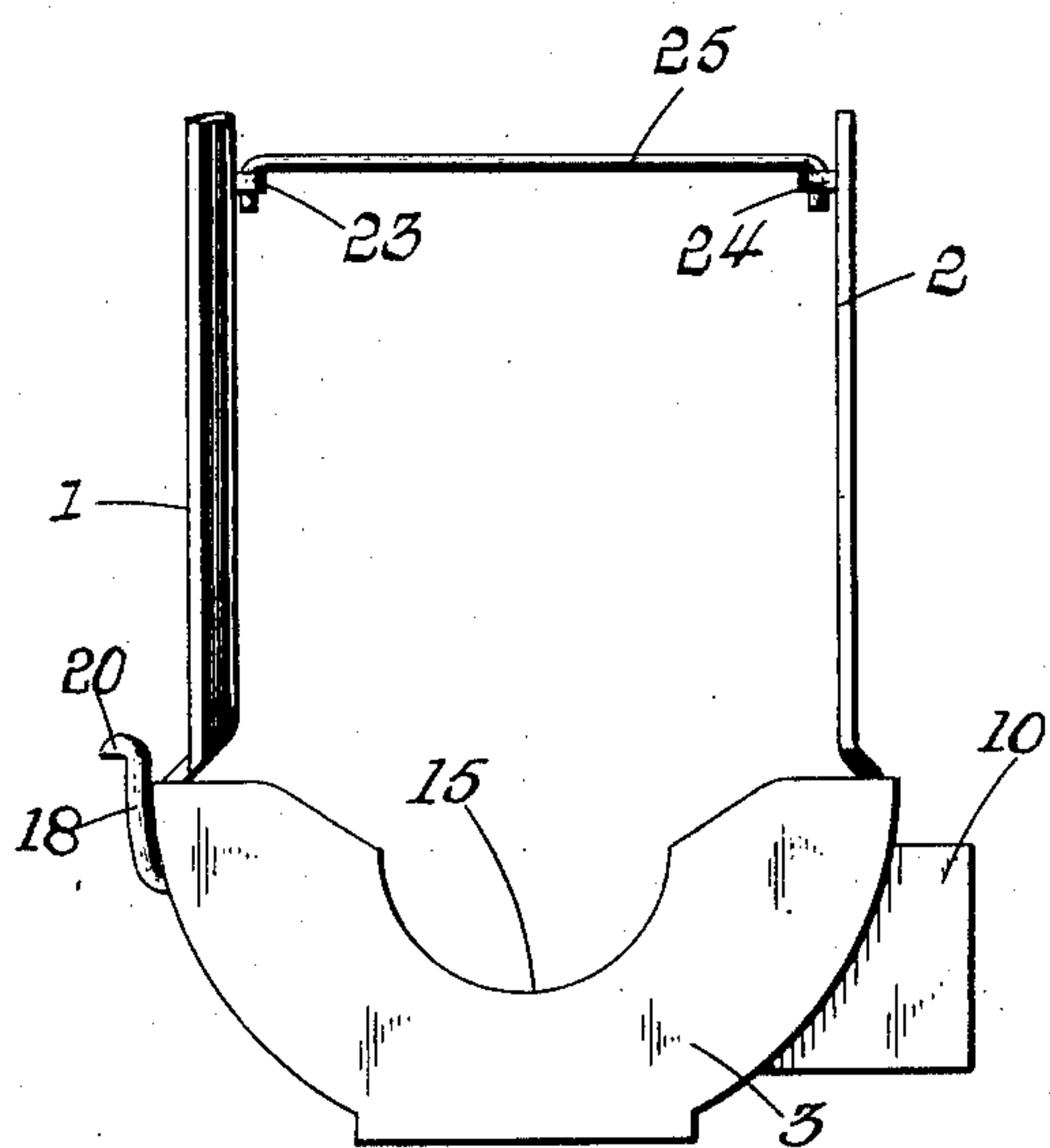
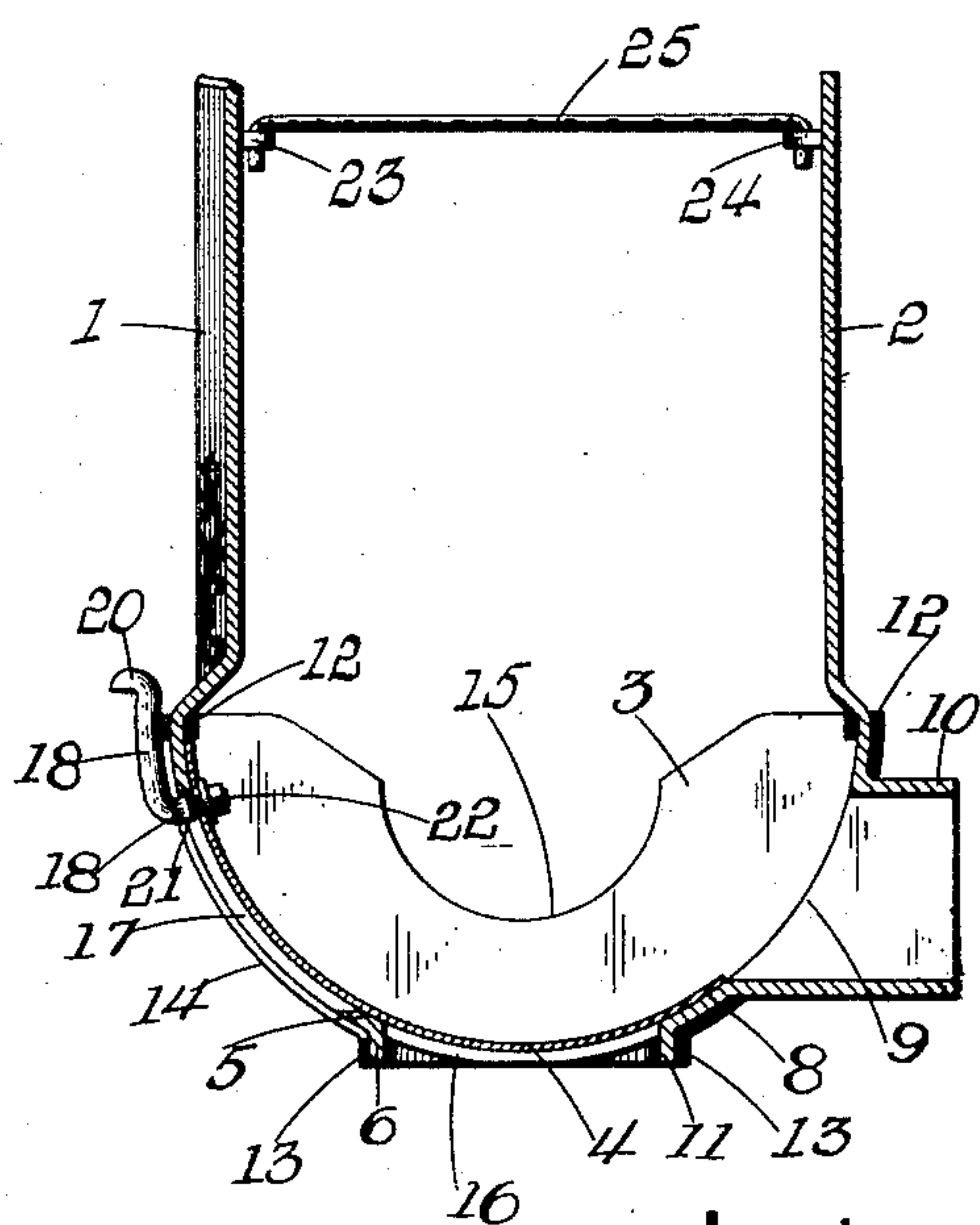


Fig. 6.



Witnesses.

L. M. Sangster.  
Geo. A. Neubauer.

Inventor.

By

John F. Geary.  
A. J. Sangster

Attorney.



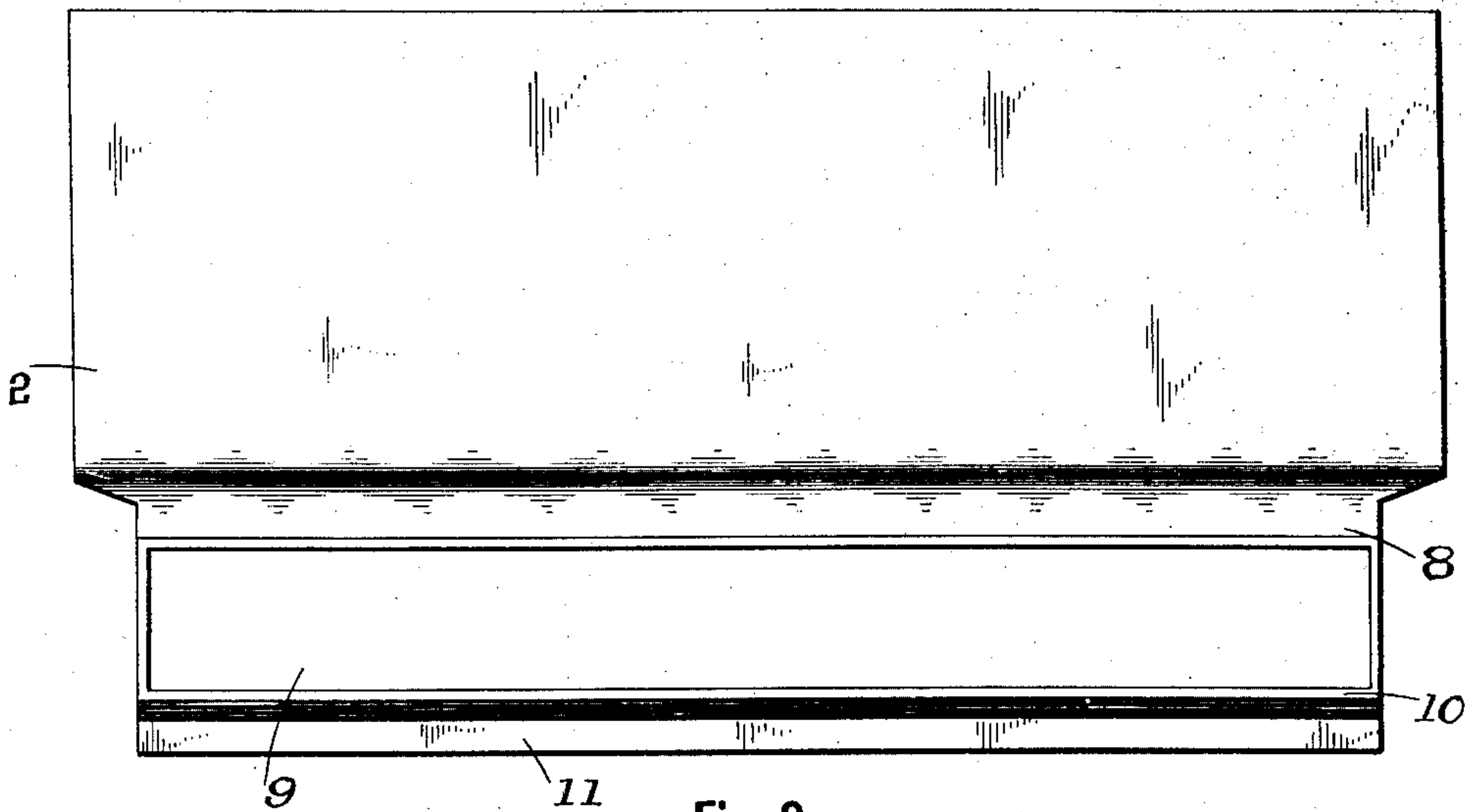
No. 827,093.

PATENTED JULY 31, 1906.

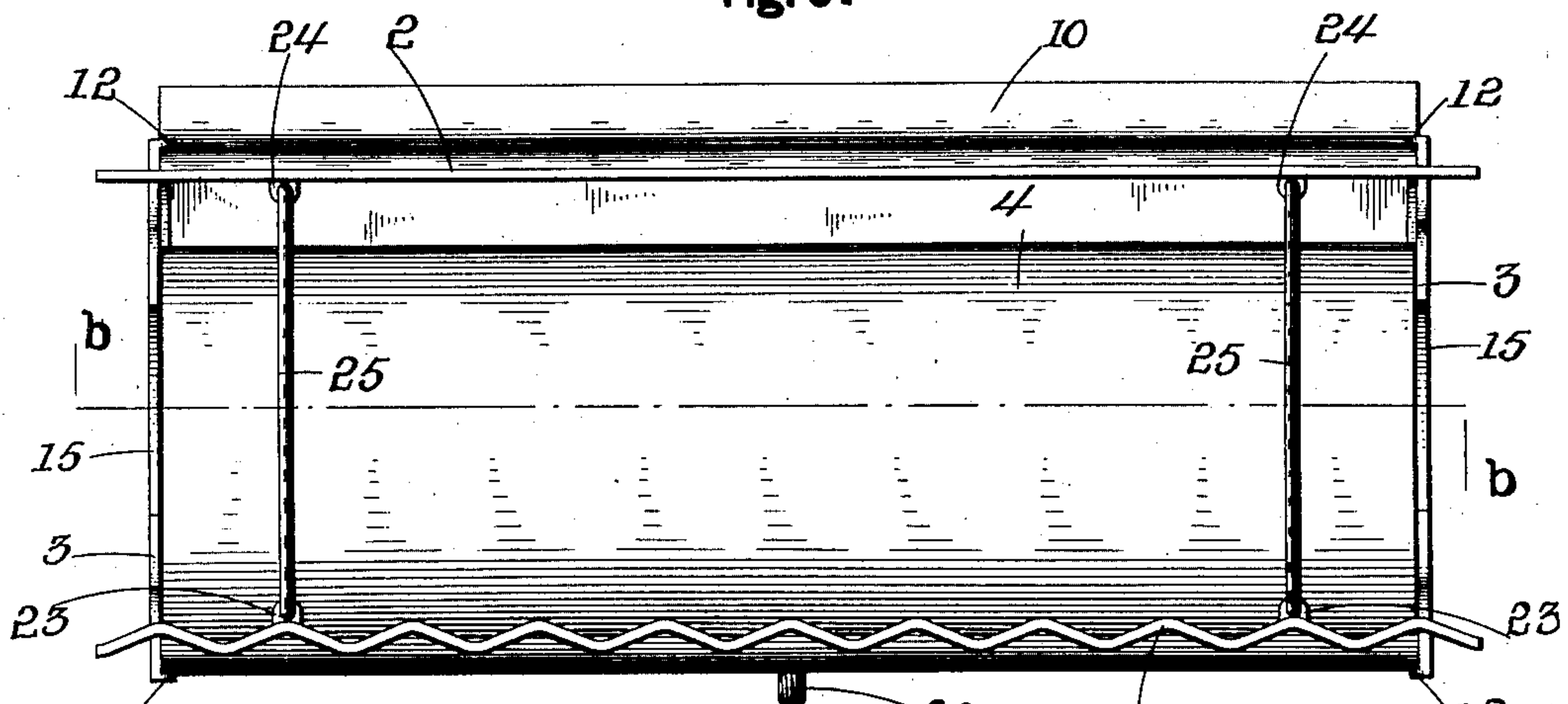
**J. F. GEARY.**  
**BOX BASE FOR RADIATORS.**  
**APPLICATION FILED JUNE 15, 1903.**

3 SHEETS—SHEET 3.

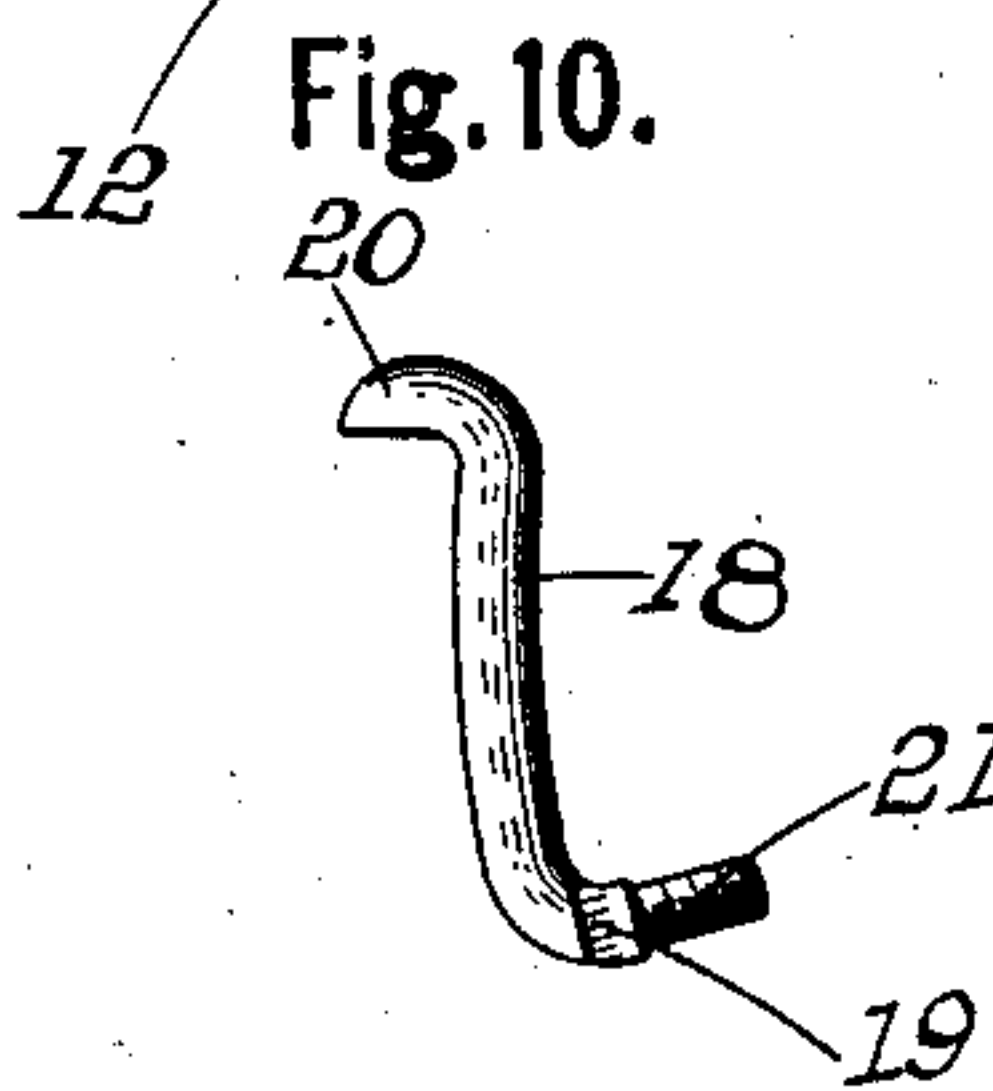
**Fig. 7.**



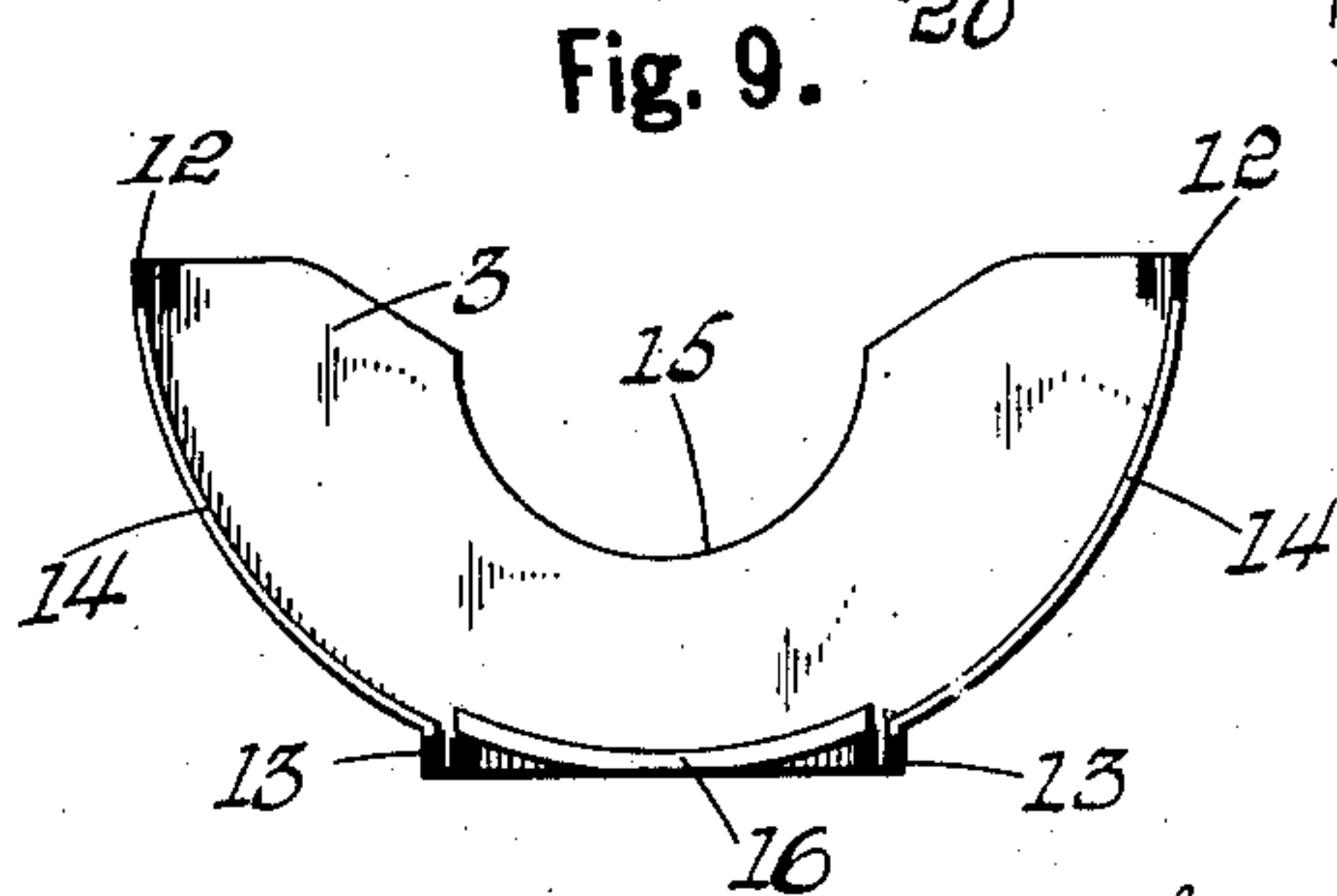
**Fig. 8.**



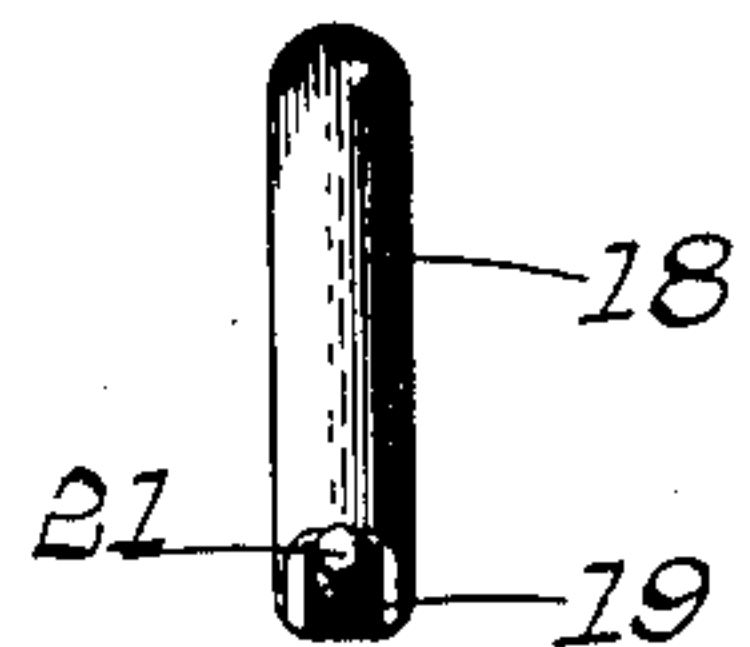
**Fig. 10.**



**Fig. 9.**



**Fig. 11.**



**Witnesses.**

L. M. Sangster

Geo. A. Neubauer.

**Inventor.**

Inven  
John F. Geary.

**By**

A. J. Langston.

**Attorney.**



# UNITED STATES PATENT OFFICE.

JOHN F. GEARY, OF DUNKIRK, NEW YORK, ASSIGNOR TO UNITED STATES RADIATOR COMPANY, OF DUNKIRK, NEW YORK.

## BOX-BASE FOR RADIATORS.

No. 827,093.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed June 15, 1903. Serial No. 161,512.

*To all whom it may concern:*

Be it known that I, JOHN F. GEARY, a citizen of the United States, residing at Dunkirk, in the county of Chautauqua and State of New York, have invented certain new and useful Improvements in Box-Bases for Radiators, of which the following is a specification.

This invention relates to an improvement in box-bases for radiators or the like which forms by itself a complete compartment entirely separate and distinct from the radiator to which it is attached by spring interlocking means.

One of the principal features of the invention has reference to the manner of securing the base to the radiator without the aid of bolts, rivets, or the like and without in any way disfiguring the radiator. This is accomplished by forming the base in a plurality of parts or plates which in themselves form a complete compartment beneath the lower portion of the radiator-body and between the radiator-legs and are sprung into interlocked position.

Another feature has reference to the curved construction of the lower portion of the base-body and the damper curved correspondingly to fit, slide, and be wholly supported on said curved portion whereby all pivots, supporting-shafts, and connections are dispensed with and the construction thereof is reduced to the simplest possible form embodying only a curved plate and a handle.

This invention also relates to certain details of construction, all of which will be fully and clearly hereinafter described and claimed, reference being had to the accompanying drawings, in which a preferred adaptation of the improved box-base is shown.

Figure 1 is a front elevation of a radiator having the improved box-base attached thereto. Fig. 2 is a central vertical section on line *a a*, Fig. 1. Fig. 3 is an enlarged front elevation of the improved box-base separated from the radiator. Fig. 4 is a longitudinal section on line *b b*, Fig. 8. Fig. 5 is an end elevation of the box-base complete separated from the radiator. Fig. 6 is a transverse section on line *c c*, Fig. 3. Fig. 7 is a detached outside view of the rear plate. Fig. 8 is a top plan view of the box-base.

Fig. 9 is a detached inside view of one of the end plates. Fig. 10 is a side elevation of the bar used to operate the curved damper. Fig. 11 is a rear view of the bar shown in Fig. 10.

In referring to the drawings in detail like numerals designate like parts.

This improved box-base is a complete compartment in itself and is designed so as to be entirely distinct and separate from the radiator and forms by itself a rectangular compartment which is detachably fitted around the lower portion of the radiator-body and between the radiator-legs.

The box-base consists of a front plate 1, rear plate 2, end plates 3, and a curved damper 4, which is wholly supported by and slides on the curved lower portions of the front and rear plates 1 and 2.

The upper portion of the front plate 1 in the preferred adaptation is corrugated, as shown in Figs. 1, 2, 3, and 8, to conform to the curved shape of the lower portion of the radiator against which it is adapted to fit, and the lower portion 5 of said front plate 1 is curved inwardly and terminates in a short downwardly-extending portion 6. The curved portion 5 is provided with a series of vertical slots or elongated air-openings 7.

The lower portion 8 of the rear plate 2 is curved inwardly and provided with a comparatively long and narrow or rectangular opening 9. A rectangular-shaped pipe or connection 10 extends horizontally rearwardly from the surrounding edge of the opening 9 in the curved portion 8. The portion 8 terminates at its lower end in a short vertically downward-extending portion 11. The end plates 3 have their front and rear edges curved to correspond to the curved portions 5 and 8 of the front and rear plates 1 and 2 and are provided with upper and lower lugs 12 and 13, which extend inwardly from the inner face thereof. The upper lugs 12 fit or lock over the end edges of the front and rear plates 1 and 2 when in position around a radiator, and the lower lugs 13 fit or lock over the end edges of the short downwardly-extending portions 6 and 11 of the plates 1 and 2.

A flange 14 extends inwardly from each of the curved edges of the curved plates 3 and locks over the outer surface of the lower



curved portions 5 and 8 of the front and rear plates 1 and 2 when the plates are in assembled position around a radiator.

The end plates 3 have their top edges cut away at 15 to provide semicircular depressions in which the lower tubular connections between the radiator-sections fit, and a curved flange 16 extends inwardly from near the lower edge of the plates 3 and serves as a guide or track upon which the curved damper slides.

The curved damper 4 is bent to substantially the same curve as the flange 16 and the inner surface of the curved lower portions 5 and 8 of the front and rear plates 1 and 2, upon which it slides.

It will be seen that the curved damper is reduced and simplified in construction to the greatest possible degree, embodying only a curved plate and an operating-handle, and that it is not hung from pivots or shafts, but is wholly supported by and upon the curved lower portion of the base.

The lower curved portion 5 of the front plate 1 is provided with a long narrow vertical slot 17, which is preferably in the middle or near the middle of the front plate, being between two of the slots 7, (see Figs. 1 and 3,) and an angular bar 18 has its lower end 19 reduced and bent inwardly through the slot 17 and its outer and upper end 20 bent or curved outwardly to constitute a convenient projecting knob or handle for shifting the damper 4. The inner end 21 of the reduced portion 19 is screw-threaded, as shown in Fig. 10, and is passed through an opening in the curved damper 4 and fastened in place by a lock-nut 22, screwed upon the screw-threaded end 21.

The curved damper 4 is but wide enough to close one opening at a time, so that when it is moved to close the slots or openings 7 in the lower curved portion 5 of the front plate 1 the opening 9 in the lower curved portion 8 of the rear plate 2 will be open, and when it is moved to close the rectangular rear opening 9 the front slots or openings 7 will be open. It can also be moved to partially close both the openings, so that the upper portion of the opening 9 and slots 7 may be open at the same time to provide a circulation of air through the lower portion of the radiator and the box-base into the room.

The front and rear plates 1 and 2 are each provided with a plurality of inwardly-extending lugs 23 and 24 near the upper edges thereof, and a rod 25, having its ends bent substantially at right angles thereto, has one of its bent ends passed through an opening in one of the lugs 23 on the front plate 1 and its opposite end passed through an opening in one of the lugs 24 on the rear plate 2, thereby holding the front and rear plates 1 and 2 and end plates 3 securely together.

A rectangular pipe 26 is fitted over the

rearwardly-extending pipe or connection 10 on the rear plate 2 and extends through the wall of the room in which the radiator is placed to the open air.

In assembling the improved form of box-base the end plates 3 are first placed in position against the inside of the radiator-legs and the rear plate 2 placed in position between the lugs on the rear of the end plates 3. After the curved damper 4 is fastened to the front plate 1, as before described, and drawn up to its highest position the front plate 1 is placed in position relative to the form of the radiator and is interlocked in said position between the lugs on the front of the end plates 3. This is accomplished by springing one or both of the end plates 3 from each other sufficiently to allow the front plate to be forced or sprung into interlocked position.

The front plate 1 is slightly longer than the distance between the end plates 3, so that the end plate 3 must be sprung slightly outward and the front plate 1 be forced between the lugs on the end plates.

The upper portions of the front or rear plates 1 and 2 are sprung toward each other and the bent ends of the rods 25 passed through the openings in the lugs 23 and 24, the lugs 23 and 24 being so placed that the rods 25 pass between two of the radiator-sections.

The operation of this improved box-base when in place around a radiator is as follows: When it is desired to admit air from outside the room in which the radiator is placed, the bar 18 is moved upward, thus moving the curved damper 4 to close the openings 7 in the lower curved portion 5 of the front plate 1 and open the opening 9 in the rear plate 2. The air is drawn through the pipe 26 and up between the radiator-section, being heated as it passes upward. If, however, it is desired to shut off the supply of air from outside the room, the bar 18 is moved downward, carrying with it the curved damper 4 and closing the rear opening 9. This opens the series of elongated openings 7 in the front plate 1, and the air is drawn from near the floor of the room, where it is coldest, through the openings 7 and is heated as it passes upward between the radiator-sections.

It will be seen from the foregoing description and the drawings that the damper 4 may be moved to partially close the rear opening 9, and thus regulate the supply of fresh air passing into the room through the pipe 26.

One of the principal advantages of this improved form of box-base is the simplicity and cheapness of its construction, nearly all of the parts being cast, and the manner of springing and interlocking the parts around a radiator, there being no bolts, rivets, or levers used which require fitting.

Another advantage of this improved box-base is that it forms a rectangular compart-



ment entirely by itself which fits snugly around the lower portion of the radiator and between the radiator-legs.

The tie-rods are not absolutely necessary to fasten the plates around a radiator and may, if desired, be dispensed with, although the box-base will not be locked as firmly around the radiator.

I claim as my invention—

1. The combination with a radiator, of a box-base forming in itself a complete compartment and adapted to be sprung into interlocking position with respect to said radiator.

2. The combination with a radiator, of a detachable box-base comprising a plurality of plates adapted to be sprung into interlocking position around said radiator and forming in itself a complete compartment beneath the radiator-body and between the radiator-legs which is entirely distinct and separate from the radiator.

3. The combination with a radiator, of a box-base forming in itself a complete compartment detachably secured to said radiator and arranged beneath the radiator-body and between the radiator-legs with portions extending on the sides of the radiator-body.

4. A box-base for radiators comprising front, rear and end plates all of which are separate and distinct from the radiator and are arranged to be secured together by interlocking lugs, substantially as set forth.

5. The combination with a radiator having legs, of a box-base having a plurality of interlocking parts, some of which are adapted to be arranged against the inner surface of the legs and others of which are adapted to be sprung into interlocking position with said first-mentioned parts, substantially as set forth.

6. The combination with a radiator having legs, of a box-base therefor comprising a front plate, a rear plate and two end plates, said end plates fitting against the inner surface of the legs and having lugs locking over the front and rear plates.

7. A box-base for radiators comprising front, rear and end plates all of which are separate and distinct from the radiator and the lower portions of which are arranged to be secured together by interlocking lugs, and tie-rods for additionally securing the upper portions, substantially as set forth.

8. The combination with a radiator having legs, of a box-base therefor comprising end plates adapted to fit against the inner surface of the legs and side plates adapted to fit against the radiator sides, some of said plates having locking-lugs, and one of the side plates being slightly longer than the distance between the end plates whereby one of the end plates is sprung slightly from the other in interlocking the plates around the radiator, substantially as set forth.

9. A box-base for a radiator having front

and rear openings and a curved lower portion, and a curved damper supported wholly by and slidably mounted on said curved lower portion; said damper being adapted to govern said openings.

10. A box-base for a radiator having front and rear openings and a curved lower portion, and a damper slidably mounted in the said lower portion and correspondingly curved; said damper being supported wholly by said lower portion and being adapted to govern said openings.

11. A box-base for a radiator having a curved lower portion and a plurality of vertical slots in its front and an opening in the rear and a curved damper supported wholly by the curved lower portion and provided with an operating-handle which projects through one of the slots in the front, said damper being adapted to govern said openings, substantially as set forth.

12. A box-base for radiators comprising end plates, a front plate having a lower curved portion and an opening, a rear plate having an opening and a lower curved portion, said lower curved portions together constituting a bottom curved to an arc of a circle, and a curved damper supported wholly by and slidably mounted on said curved bottom to govern said openings, substantially as set forth.

13. A box-base for a radiator having a plurality of openings leading from different sources of air-supply and a lower curved portion and a curved damper slidably mounted on said lower curved portion which is adapted when in one position to close or partially close one of said openings, and when in another position to close or partially close another of said openings.

14. The combination with a radiator, of a box-base forming in itself a complete compartment and adapted to be sprung into interlocking position with respect to said radiator, said base including a curved lower portion having openings, and a curved slide-damper wholly supported upon said curved lower portion.

15. The combination with a radiator, of a box-base therefor comprising a plurality of plates, two of which are arranged respectively at the front and rear of the radiator and have portions curving toward each other beneath the radiator and provided with openings, end plates interlocking with said front and rear plates, and a curved slide-damper resting upon and wholly supported by said curved portions of the front and rear plates.

16. A box-base for a radiator comprising a plurality of plates adapted to be sprung into interlocking position around a radiator

17. A box-base for a radiator which in itself forms a complete compartment and is adapted to be sprung into interlocking position with respect to a radiator.



18. A box-base for a radiator comprising a plurality of plates adapted to be sprung into interlocking position with a radiator and forming in itself a complete compartment 5 beneath the radiator-body and between the radiator-legs which is entirely distinct and separate from said radiator.

19. A box-base having a plurality of interlocking parts, some of which are adapted to 10 be arranged relatively to a radiator and others of which are adapted to be sprung into interlocking position with said first-mentioned parts, substantially as set forth.

20. The combination with a radiator, of a 15 box-base having front and rear plates, one of which is corrugated to correspond with the shape of the radiator, and end plates which are separate from the radiator and are adapted to interlock with said front and rear 20 plates.

21. The combination with a radiator, of a box-base therefor comprising a plurality of plates, two of which are arranged at the

front and rear of the radiator, and having portions curving toward each other beneath 25 the radiator, and resting at their lower extremities upon the floor and end plates interlocking with said front and rear plates, substantially as set forth.

22. The combination with a radiator, of a 30 box-base therefor comprising a plurality of plates, two of which are arranged at the front and rear of the radiator, and having portions curved toward each other beneath the radiator and resting at their lower ex- 35 tremities upon the floor and end plates interlocking with said front and rear plates, said box-base having an inlet-opening and an outlet-opening and a damper slidably supported in the curved portions of front and rear plates 40 and adapted to close said openings, substantially as set forth.

JOHN F. GEARY.

Witnesses:

GEO. A. NEUBAUER,  
CHAS. PANKOW.