

No. 698,496.

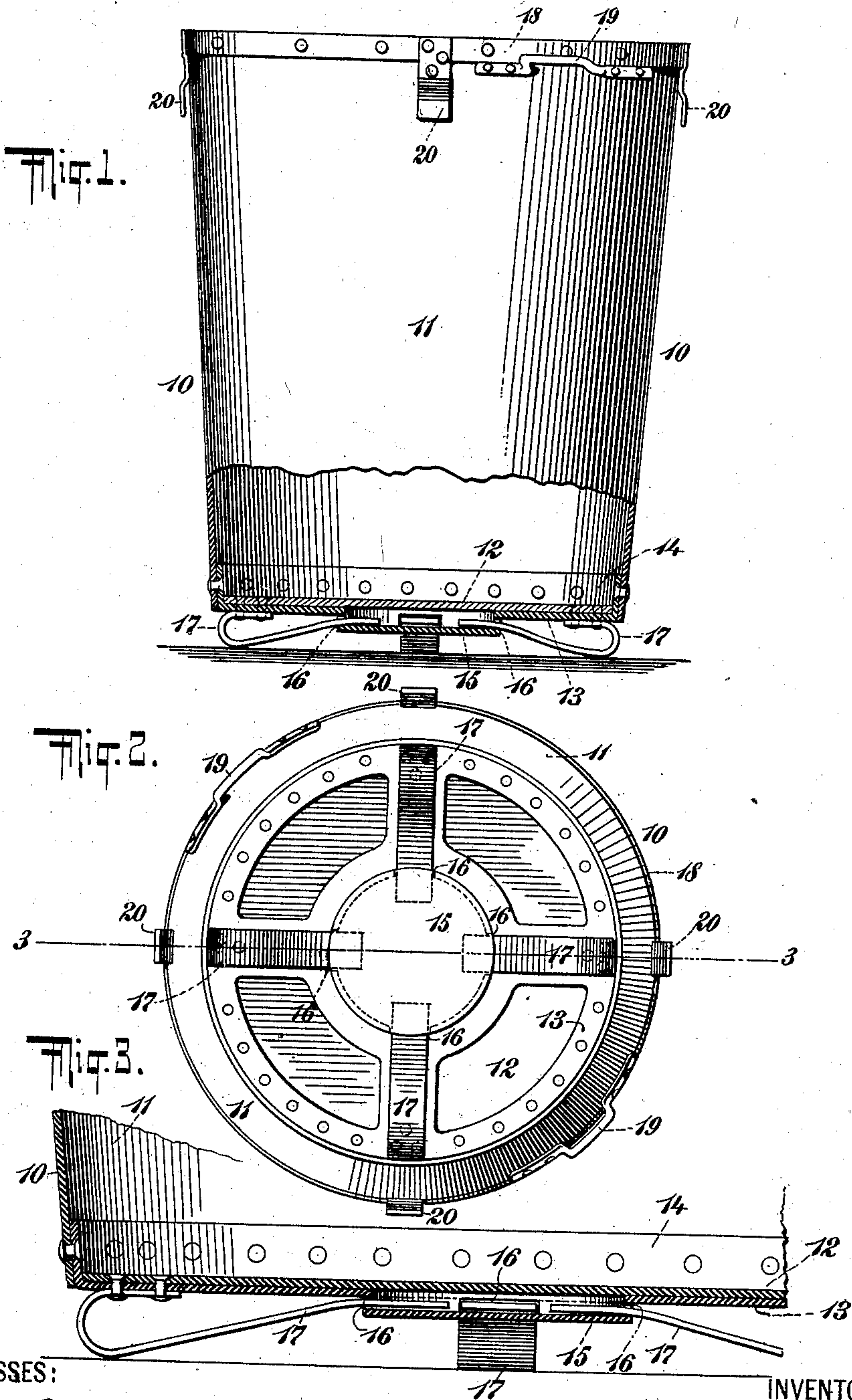
Patented Apr. 29, 1902.

T. HILL.  
ASH OR REFUSE CAN.

(Application filed Jan. 28, 1901.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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Fig. 4.

Fig. 7.

Fig. 8.

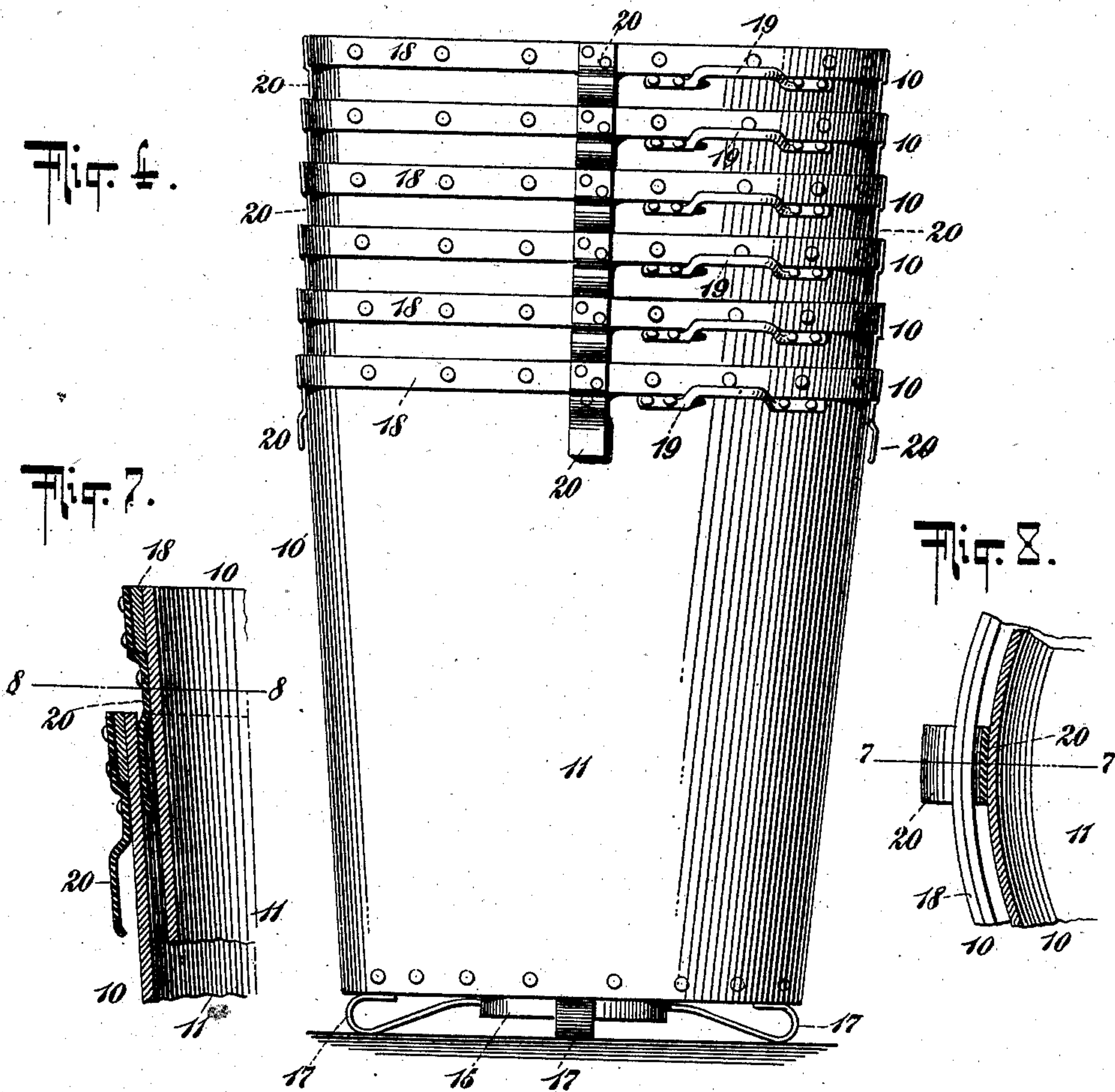
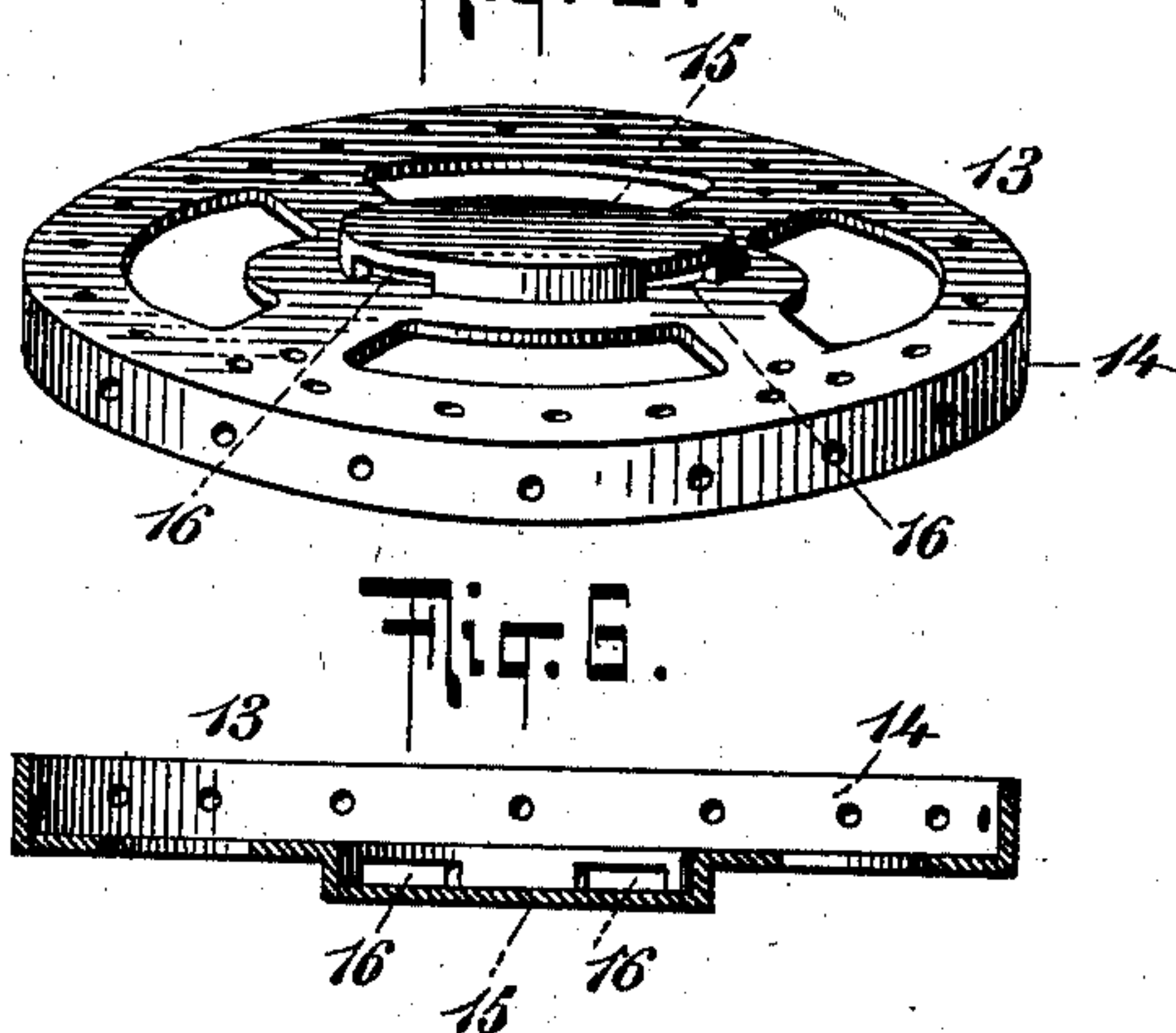


Fig. 5.

Fig. 6.



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# UNITED STATES PATENT OFFICE.

THOMAS HILL, OF JERSEY CITY, NEW JERSEY.

## ASH OR REFUSE CAN.

SPECIFICATION forming part of Letters Patent No. 698,496, dated April 29, 1902.

Application filed January 28, 1901. Serial No. 44,996. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS HILL, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Ash or Refuse Cans, of which the following is a specification.

The invention relates to improvements in ash and refuse cans and the like; and it consists in the novel construction, arrangement, and combinations of parts hereinafter described, and particularly pointed out in the claims.

The object of the invention is to provide means for adding to the longevity of cans employed for holding ashes and refuse. It is well known that cans of this character, owing to the severe use to which they are put, become rapidly mashed in, broken, and destroyed. In many places the cans are in nests of five or six cans transported upon push-wagons or can-carrier wagons of the character shown and described in Letters Patent of the United States No. 633,998, granted to Thomas Hill on October 3, 1899, said cans being disposed at various points along the line of the street to be cleaned. In this use of cans of the ordinary construction the fact of the nesting results in injury to the cans, since the cans ordinarily in use when nested together become bound one within the other by reason of the contact of the sides of the cans and other conditions and considerable force has to be exerted to pull the cans apart, this force being exerted by the attendant and frequently to the destruction of the cans. It is also important even when the cans in their nested condition do not become firmly stuck one within the other that said cans shall not be capable of rattling about one within the other, as might be the case if the upper cans were simply supported at the opposite sides of their upper ends, but that they shall have their contacting parts so disposed as to hold the cans with some firmness but without permitting them to rattle about one within the other during the travel of the wagon. It is also important that the bottoms of the cans should be protected against undue concussive force both during the nesting of the cans and when they are removed from their nested condition and placed upon the ground. The

purposes of the present invention are to provide cans which may be nested one within the other without either binding or rattling one within the other and also cans having a bottom structure capable of resisting concussive force, and these purposes I attain by the means hereinafter described, and particularly pointed out in the claims.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation, partly broken away and partly in section, of a refuse-can constructed in accordance with and embodying the invention. Fig. 2 is a bottom view of same. Fig. 3 is an enlarged central vertical section through a portion of the lower part of the can. Fig. 4 is a side elevation of a nest of six of the cans. Fig. 5 is a detached perspective view of the bottom disk of the can, the same being shown in an inverted position. Fig. 6 is a central vertical section of same in its normal position. Fig. 7 is a central vertical section through a portion of two of the cans, one being within the other, and is presented to show more accurately the effect of the springs carried by the sides of the upper ends of the cans; and Fig. 8 is a horizontal section of same on the dotted line 8 8 of Fig. 7, and in Fig. 8 the dotted line 7 7 denotes the section on which Fig. 7 is taken.

In the drawings, 10 designates a refuse-can, the body 11 of which is tapering and of the usual construction.

The bottom structure of the can 10 comprises an inner disk 12 and an outer disk or frame 13, the disk 12 being riveted upon the disk 13 and the disk 13 being formed with the annular upwardly-extending edge flange 14, which is riveted to the lower edges of the body 11, as shown. The disk 12 is simply a flat disk of sheet metal and forms an inner bottom for the can. The disk 13 is in the form of a frame having the edge flange 14 and formed at its center with the depressed portion 15, which is in the form of a disk, and in its sides has the series of openings 16 to admit the free ends of the several springs 17 to the space created between the said portion 15 and the lower surface of the central part of the disk 12. Adjacent to the outer portions of the disk or frame 13 are secured the springs 17, whose free ends extend through



the aforesaid openings 16 and which springs afford a yielding support for the entire can, the can standing on said springs and said springs preventing the contact of the bottom structure of the can with the ground. The springs 17 are fastened at one end, but are free to slide at the other end, and hence said springs may be constructed of durable character without interfering with their having sufficient yielding action to protect the can 10 and relieve the latter from the usual concussive force created by the contact of the can with the ground when the can is handled in the ordinary rough way.

The upper edge of the can 10 is provided with a usual strengthening-band 18 and handles 19, and in addition in the present instance the can 10 at its upper portion preferably is provided with a series of two or more leaf-springs 20, which are fastened at their upper ends and are free at their lower ends to yield under pressure.

The portions of the can which enter into the present invention are the springs 20 and the bottom structure with its springs 17.

When the cans 10 are nested one within the other, as shown in Figs. 4, 7, and 8, the springs 20 on one can will bind against the inner walls of the next lower can and perform two functions, one being to prevent the undue binding of the cans together and the other being to prevent the rattling of the upper can within the lower can. Under the weight of the can 10 the springs 20 will yield sufficiently in their contact with the walls of the lower can to afford a cushioning action which will serve to sufficiently bind the upper can within the lower can and prevent any swiveling or rattling of the upper can within the lower can. The springs 20 when the cans are nested enable the transportation of the nested cans in a substantially noiseless manner, and said springs are substantially yielding to enable the separation of the cans without the exercise of undue force. When the cans are in their nested condition, the springs 17 on the bottom can will yieldingly support the weight above them, and the springs 17 of the several cans when the latter are nested will prevent the cans from unduly entering one another and by their yielding action aid the attendant in the separation of the cans from one another. When the cans are separated from one another and deposited upon the street or sidewalk, the springs 17 will prevent the concussion caused by dropping the cans upon the street from injuring the bottoms of the cans, the said springs neutralizing the concussive action and saving the bottoms of the cans from injury. The springs 17 will support the cans 10 at all times, and hence during the moving about and handling of the cans the said springs will protect the bottoms of the cans from injury.

The cans of the character hereinbefore described, but without the springs 17 and 20,

are used by the street-cleaning departments of various cities, and it is found that notwithstanding the durable character of material used in the construction of the cans they become rapidly destroyed. It is the purpose of the present invention in providing the springs 17 and 20 to add to the life of the cans without materially adding to the expense of manufacturing the cans, and this purpose is accomplished by providing the spring-support below the bottom of the can and the springs 20 adjacent to the upper portions of the can.

The disk or frame 13 is specially adapted to receive the inner disk or bottom 12 and carry the springs 17; but I do not limit the invention in every instance to the special construction of the frame 13, though I do recommend the use of such frames. Neither is the invention limited to the special construction and arrangement of the springs 17 shown in the drawings, since I am aware that other forms and constructions of spring-supports below the bottom of the can may be employed within the spirit and scope of my invention as claimed; nor do I limit the invention to any special number of springs 20, since it is obvious that three springs 20 disposed at equal distances apart would prevent the binding and rattling of the cans one within the other; but for certainty of operation and greater efficiency I recommend that four of the springs 20 be made use of.

The invention is not limited to the special form of springs 20 shown in the drawings, and the form and construction of the springs may be changed without departing from the spirit and scope of my invention.

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

1. The tapered ash or refuse can of the character adapted for "nesting," having and carrying below its bottom the series of springs forming a spring base-support, said springs being set within the vertical plane of the lower edges of the can so as not to interfere with the "nesting" and being adapted when the cans are nested to contact with the bottom of the next lower can to prevent the can from unduly entering the next lower can and to aid in the separation of the cans, substantially as shown and described.

2. An ash or refuse can having the bottom construction comprising the disk 12 and frame 13 secured together and to the body of the can, said frame 13 having the depressed portion 15 provided with openings 16, combined with the springs 17 fastened at their outer portions, and having their inner free ends projected through the said openings 16; substantially as set forth.

3. The tapered ash or refuse can of the character adapted for "nesting," having at its upper edge the riveted band 18, at the opposite sides of its upper edge adjacent to said band the handles 19, and at convenient intervals along said upper edge the springs 20 to



prevent the nested cans from unduly sticking together or rattling, said springs being directly secured to and carried by the can, substantially as shown and described.

- 5 4. The ash or refuse can of the character adapted for "nesting," having the springs below and carried by its lower end and affording a yielding support or base for the can, and also having at intervals along its upper  
10 edge the springs 20 secured directly to and carried by the can and adapted to prevent the nested cans from sticking together or rattling, said bottom springs, when the cans are

nested, being adapted to contact with the bottom of the next lower can to prevent the can 15 from unduly entering the said lower can and to aid in the separation of the cans, substantially as and for the purposes set forth.

Signed at New York, in the county of New York and State of New York, this 25th day of 20 January, A. D. 1901.

THOMAS HILL.

Witnesses:

CHAS. C. GILL,  
GUNDER GUNDERSON.