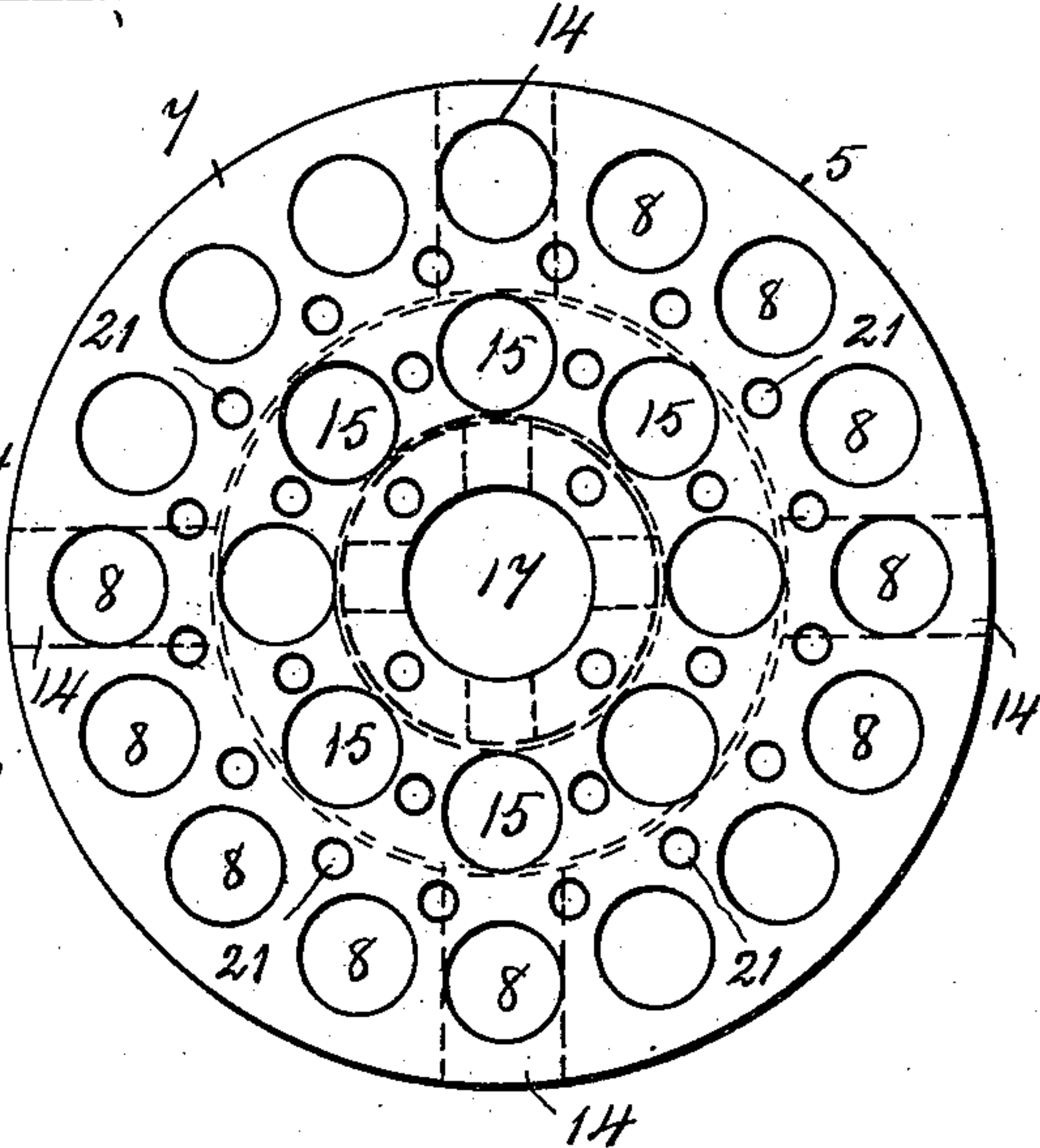
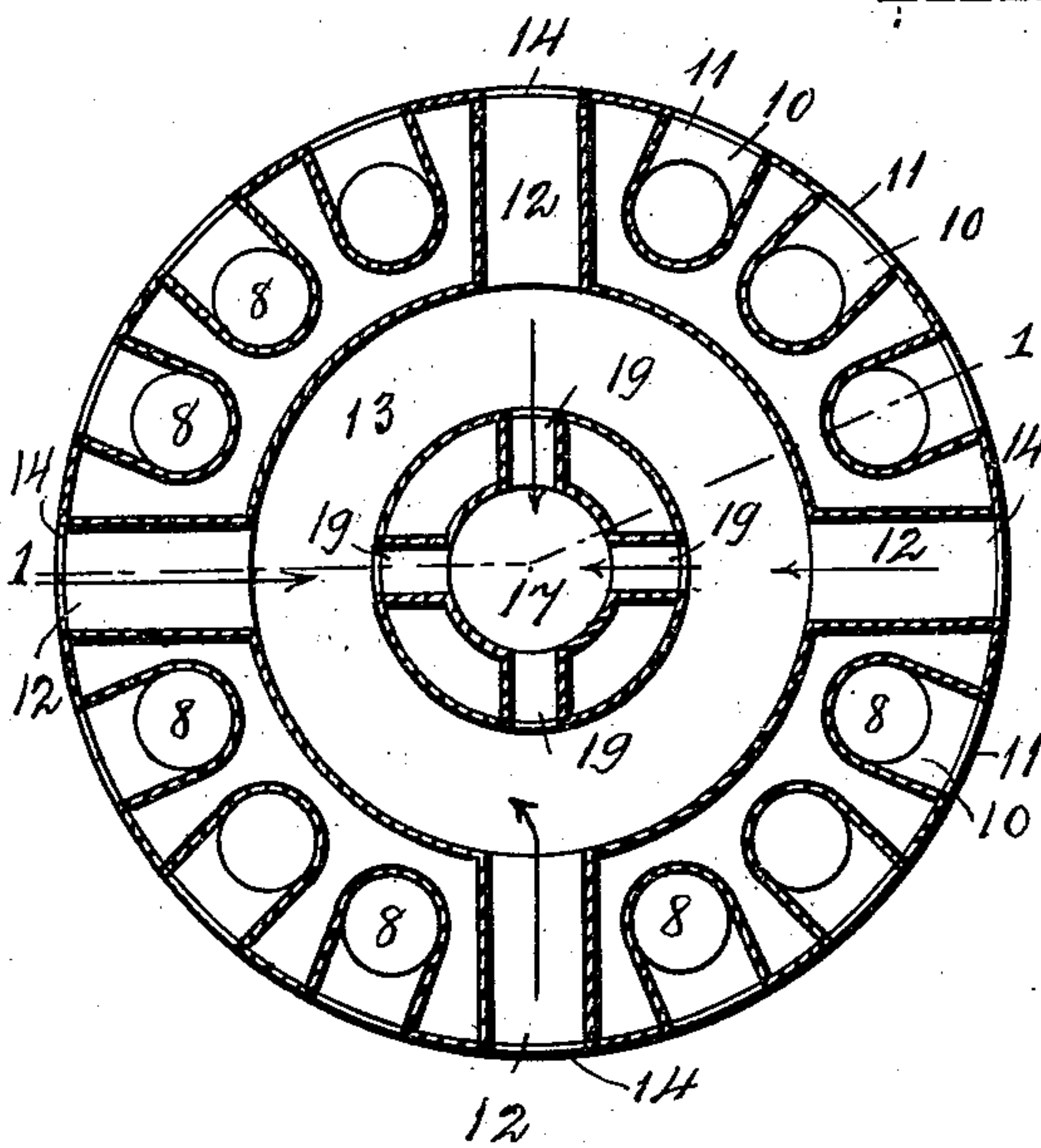
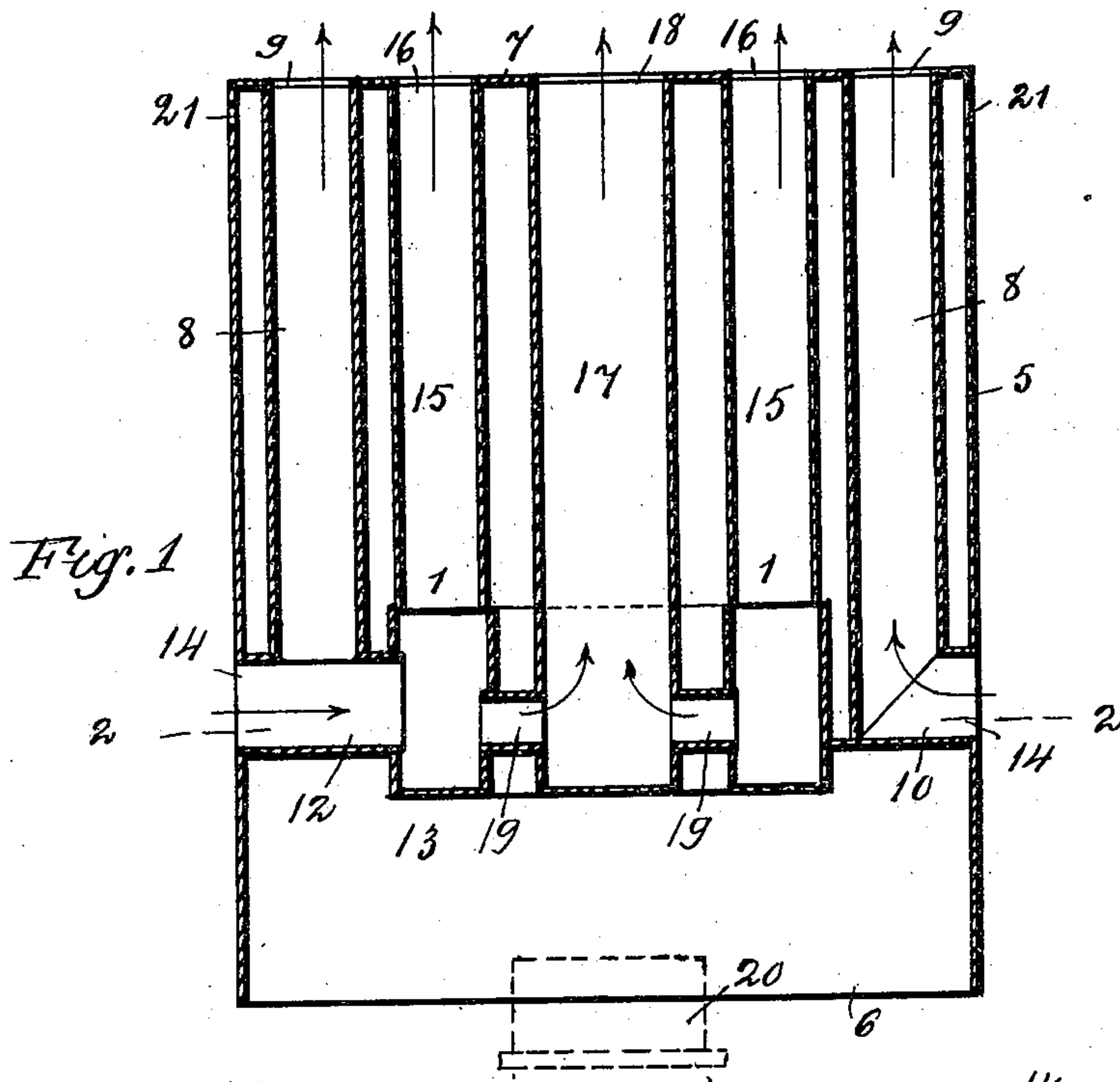


(No Model.)

H. C. STOVER.
HEATING DRUM.

No. 599,068.

Patented Feb. 15, 1898.



WITNESSES

Fig. 2

Beytson
C. Gerst.

Fig. 3

INVENTOR

Hugh C. Stover.

BY

Edgar Tate & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

HUGH CAPNER STOVER, OF PHILADELPHIA, PENNSYLVANIA.

HEATING-DRUM.

SPECIFICATION forming part of Letters Patent No. 599,068, dated February 15, 1898.

Application filed January 29, 1897. Serial No. 621,215. (No model.)

To all whom it may concern:

Be it known that I, HUGH CAPNER STOVER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Heating-Drums, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to heating-drums; and the object thereof is to provide an improved device of this class which is adapted to be used in connection with a lamp, oil-stove, gas-stove, and other and similar devices, a further object being to provide a device of this class which is simple in construction and operation and comparatively inexpensive and which may be connected with a lamp, oil-stove, gas-stove, or other heating device in any desired manner.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same numerals of reference in each of the views, and in which—

Figure 1 is a vertical section of my improved heating-drum on the line 1 1 of Fig. 2; Fig. 2, a transverse section on the line 2 2 of Fig. 1, and Fig. 3 a plan view thereof.

In the practice of my invention I provide a heating-drum consisting of a cylindrical casing 5, which is open at the bottom, as shown at 6, and provided with a top plate 7, and said heating-drum is provided with a circular row of tubes 8, which are arranged just within the same and which communicate with similar openings 9 in the top plate 7, and all of said tubes 8, with the exception of four, are provided at their lower ends with elbows 10, by which they are connected with the casing 5 and which communicate with corresponding circular openings 11 in said casing. The other four of the tubes 8 rest upon and communicate with radial tubes 12, which communicate with and support an annular chamber 13, which is arranged concentrically of the casing 5, and said tubes 12 are secured at the outer end thereof to the said casing, as shown at 14, and communicate with corresponding openings formed therein, and the

lower sides of the tubes 12 are in line with the bottoms of the tubes 8, which are provided with the elbows 10.

Within the circular row of tubes 8 is another circular row of tubes 15, which are arranged concentrically of the tubes 8 and of the center of the casing 5, and these tubes communicate at their lower ends with the annular chamber 13 and with corresponding circular openings 16 in the top plate, and at the center of the casing 15 is a tube 17, which extends downwardly to the bottom of the annular chamber 13 and the lower end of which is closed and the upper end thereof communicates with a corresponding opening 18 in the top plate, and the lower end of the tube 17 is placed in communication with the annular chamber 13 by radial tubes 19.

In the operation of the device air enters through the elbows 10 and passes upwardly through the tubes 8, and air also enters through the tubes 12, and a portion thereof passes upwardly through the tubes 8, which communicate with said tubes 12, and the air that enters through the tubes 12 also passes into the annular chamber 13 and into the central tube 17 and upwardly through the tubes 15, and in Fig. 1 I have shown in dotted lines at 20 the chimney of a lamp, oil-stove, gas-stove, or similar device, and in practice the drum is supported over said device in any desired manner, and the hot gases or products of combustion pass upwardly through said drum around the annular chamber 13 and around the tubes 8, 15, and 17, and the air in said chamber and in said tubes is highly heated. The top plate 7 is also provided with a plurality of small openings 21, through which the hot gases and products of combustion pass, and any desired number of these openings or perforations may be employed, and similar openings or perforations are also preferably formed in the upper walls of the casing 5.

My improved heating-drum is simple in construction and operation and is perfectly adapted to accomplish the result for which it is intended, and the same may be used in connection with a coal or wood stove, in which event an escape-flue for the products of combustion will be necessary.

Having fully described my invention, I

claim as new and desire to secure by Letters Patent—

As an improved article of manufacture, a heating-drum comprising a casing 5, which is
5 cylindrical in form and provided with an open bottom and top plate 7, a row of tubes 8, communicating with openings 9 in said top plate part of said tubes being provided with elbows
10 which communicate with openings 11 in the sides of said cylindrical casing, radial tubes 12 part of said tubes 8 being in communication therewith, and an annular casing
13 supported by the inner ends of said tubes 12 which also communicate therewith and
15 with openings 14 in the outer casing, a row of tubes 15 communicating with said annular

casing at the upper side thereof, and with openings 16 formed in said top plate, a tube 17 supported in said annular casing and communicating with an opening 18, in said top plate, and radial tubes 19 communicating with said tube 17, and with the annular chamber formed in said casing 13, substantially as and for the purpose described.

In testimony that I claim the foregoing as
my invention I have signed my name, in presence of the subscribing witnesses, this 22d day of January, 1897.

HUGH CAPNER STOVER.

Witnesses:

MAHLON H. STOUT,
JOHN J. STOVER.