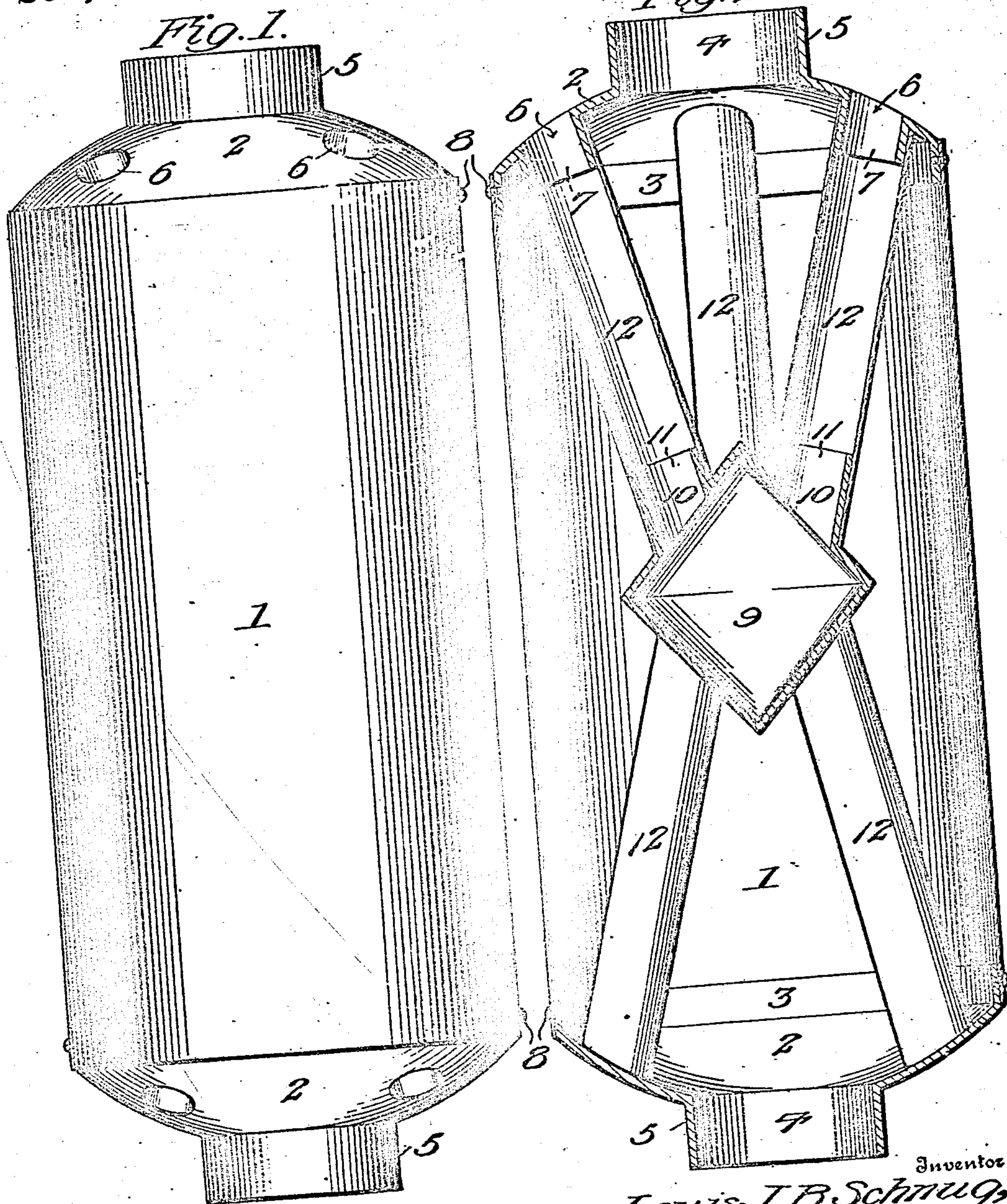


L. J. B. SCHNUG.
STOVEPIPE DRUM.
APPLICATION FILED NOV. 8, 1907.

Patented Sept. 15, 1908.

2 SHEETS—SHEET 1.

898,932.



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Fig. 3.

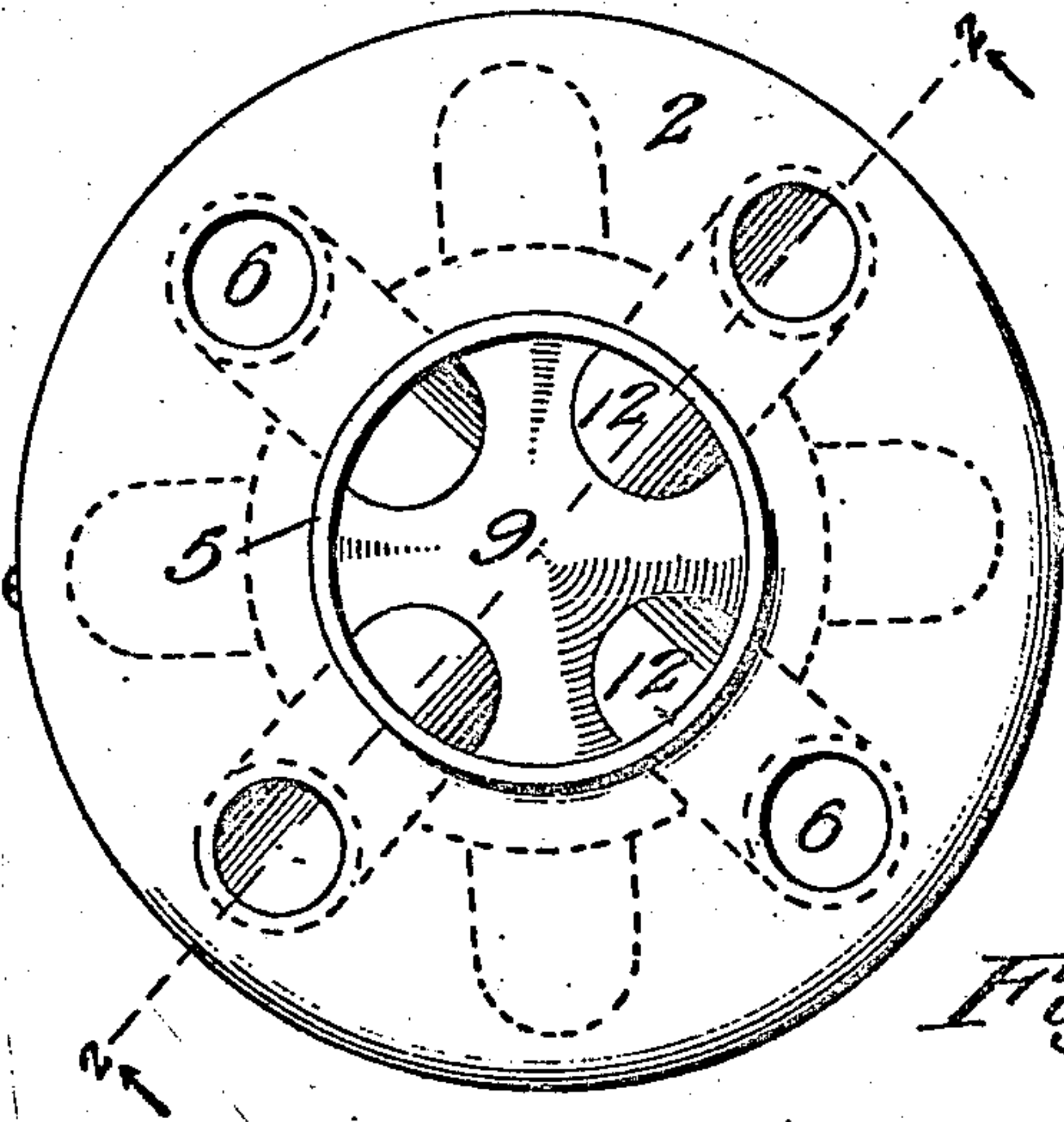


Fig. 7.

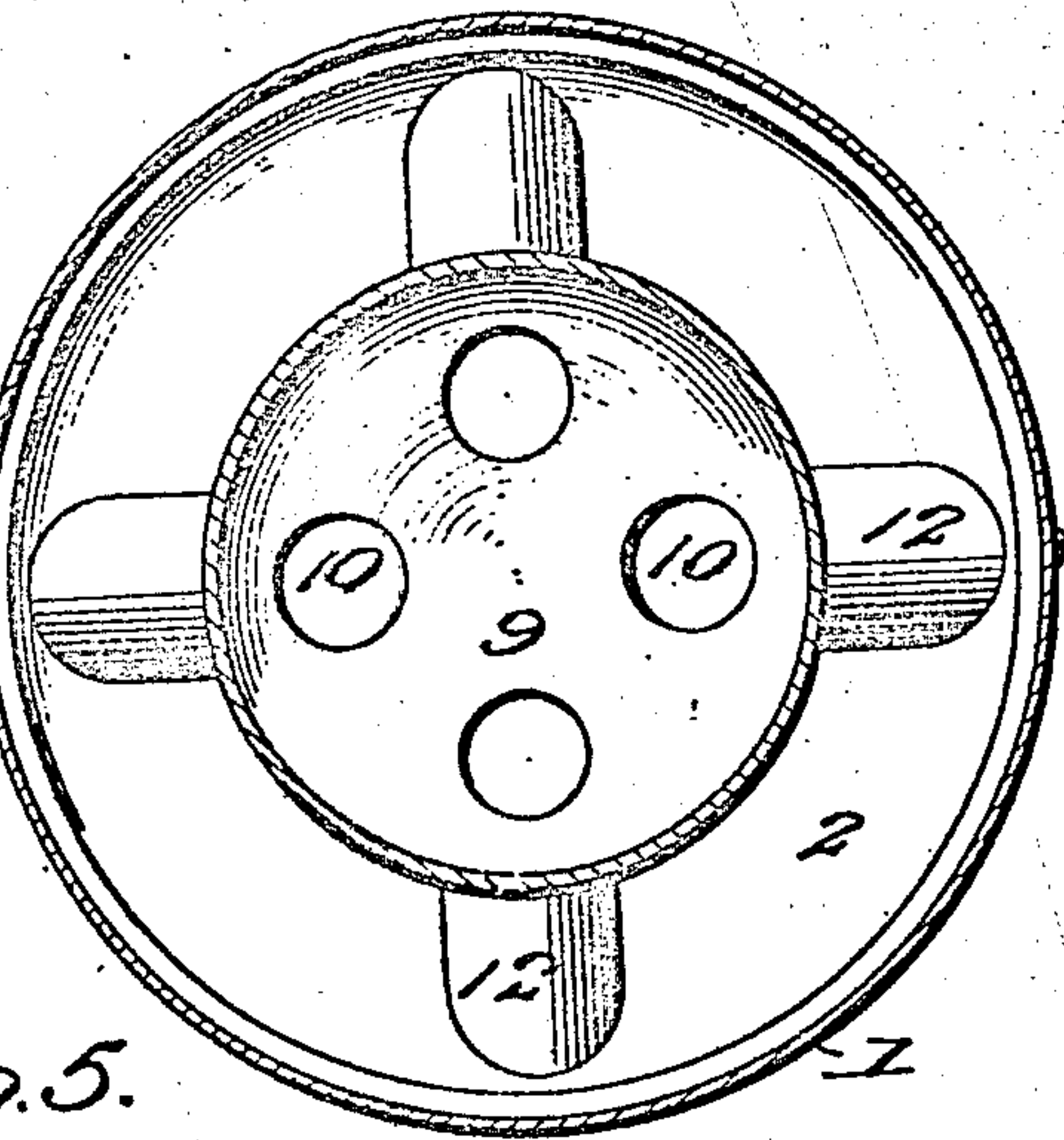


Fig. 5.

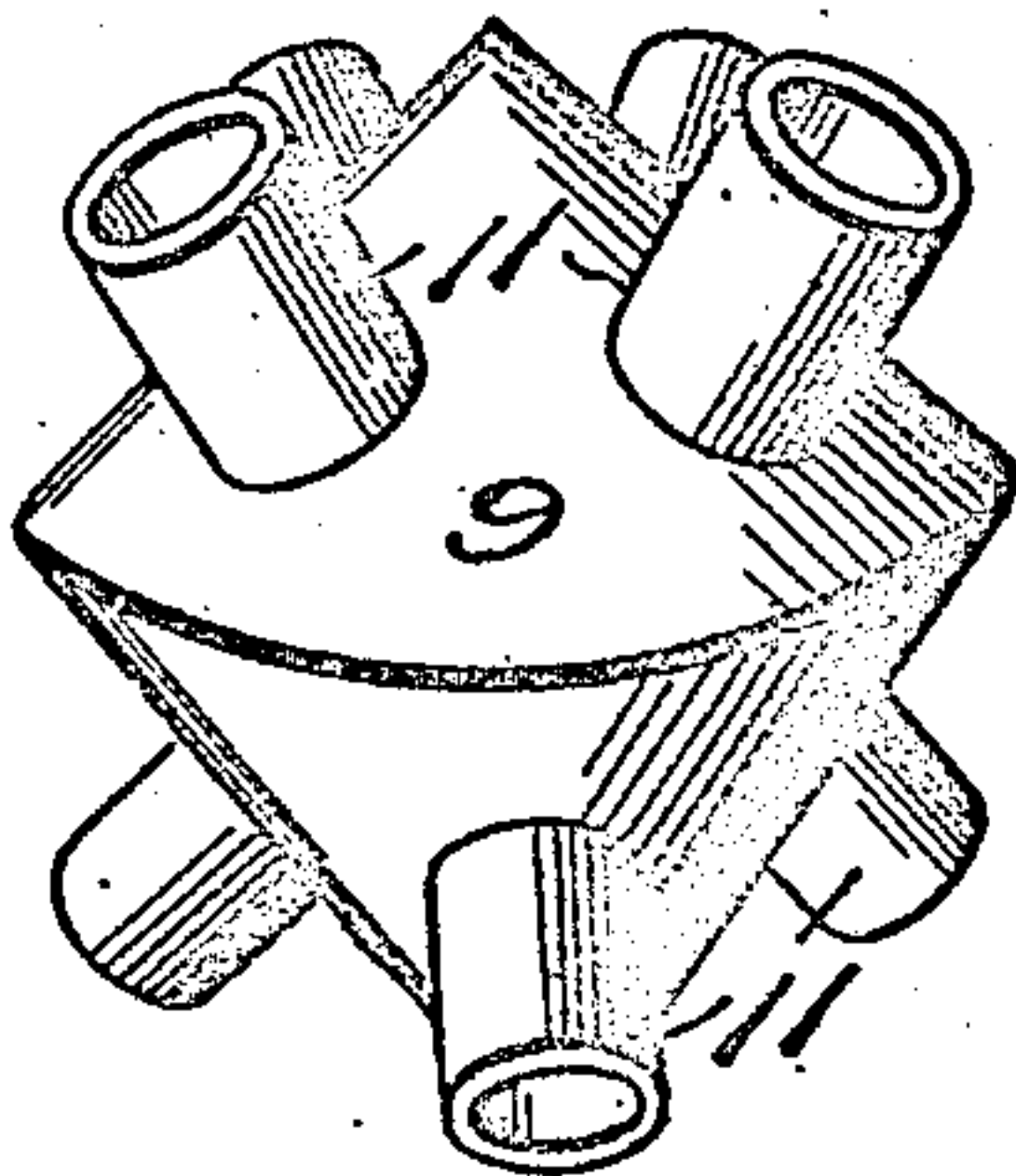
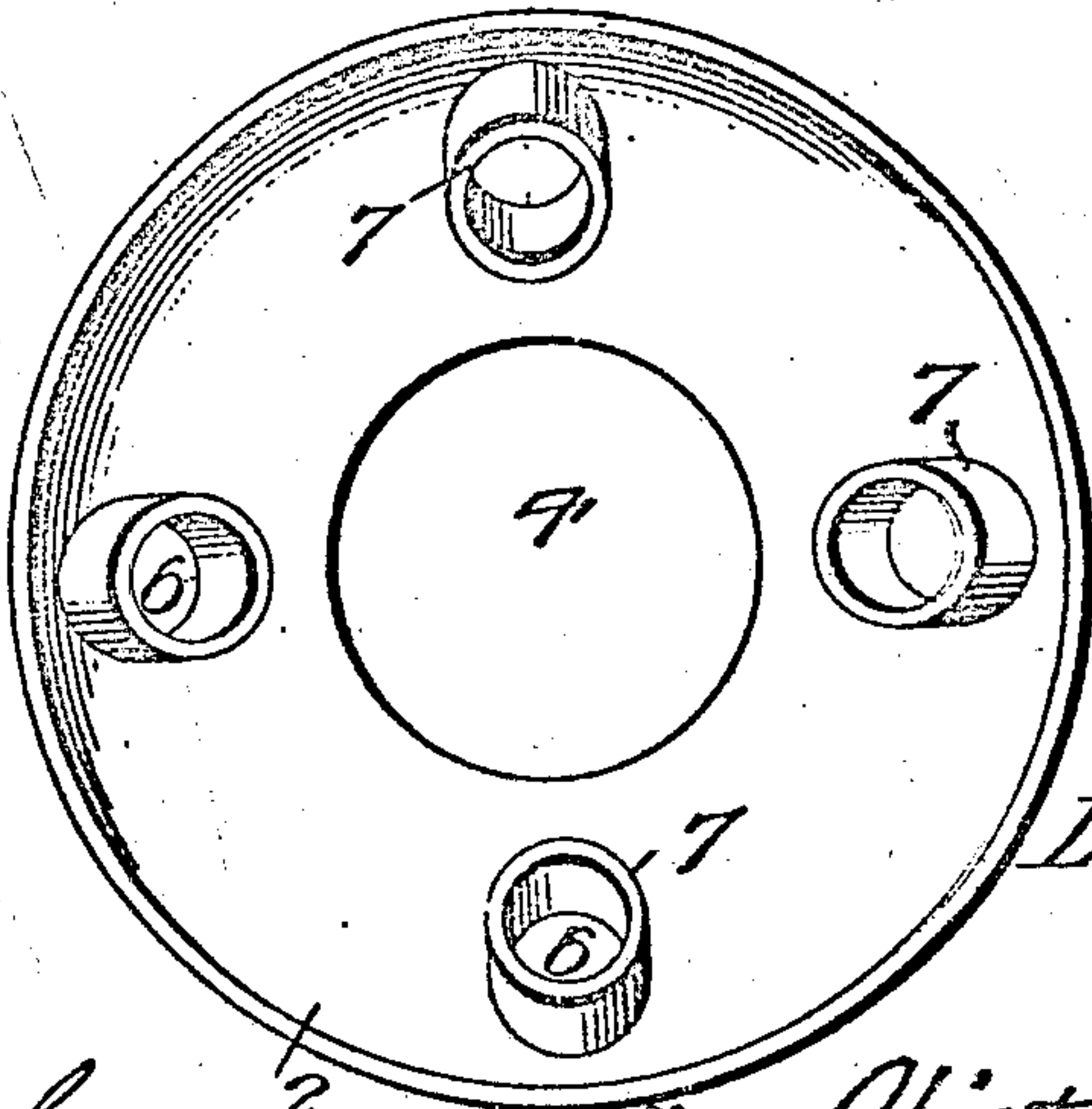


Fig. 6.



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UNITED STATES PATENT OFFICE.

LOUIS J. B. SCHNUG, OF SAGINAW, MICHIGAN.

STOVEPIPE-DRUM.

No. 898,932.

Specification of Letters Patent.

Patented Sept. 15, 1908.

Application filed November 6, 1907. Serial No. 400,978.

To all whom it may concern:

Be it known that I, LOUIS J. B. SCHNUG, a citizen of the United States, residing at Saginaw, in the county of Saginaw and State of Michigan, have invented new and useful Improvements in Stovepipe-Drums, of which the following is a specification.

This invention is an improved stove pipe drum for utilizing the otherwise waste heat of heated products of combustion which pass through the stove pipe for heating air and discharging such heated air into a room, as well as for heating by radiation, and which consists in the construction, combination and arrangement of devices hereinafter described and claimed.

The object of my invention is to provide a novel form of heating drum of simple construction which may be readily taken apart and which may be used in the pipe of a stove or heater in which any kind of fuel is burned.

In the accompanying drawings, Figure 1 is an elevation of a drum embodying my improvements. Fig. 2 is a vertical longitudinal sectional view of the same taken on the plane indicated by the line 2—2 of Fig. 3. Fig. 3 is an end elevation of the same. Fig. 4 is a transverse central sectional view of the same. Fig. 5 is a detail perspective view of the basket. Fig. 6 is a detail inverted plan view of one of the heads of the drum.

The outer casing of my improved drum comprises a cylindrical sheet metal jacket 1 and a pair of heads 2 which are preferably made of cast metal and each of which is provided with a flange 3, an opening 4, a flange collar 5 extending around said opening for the attachment of a stove pipe, and a plurality of openings 6, around each of which is an inwardly extending tubular collar 7. The ends of the jacket 1 are placed on the flanges 3 of the heads and are secured thereto by means of screws 8. Where the drum is to be supported by legs, such legs may be secured to the drum by means of such set screws at one end of the drum.

In the central portion of the drum is an air heating box 9, which is made of cast metal, is of double conical form, tapering in opposite directions, and is provided on its upper and lower sides with openings 10 and with tubular collars 11 around and extending from said openings toward the collars 7 of the heads. It will be observed, by reference to the drawings, that the openings in the upper side of

the box are out of line with those in the lower side thereof.

The box is connected to the heads of the drum by air conducting and heating tubes 12, the ends of which are placed on the collars 7 of the heads and the collars 11 of the box. It will be observed, by reference to the drawings, that said air heating and conducting tubes diverge toward the ends of the drum and that they communicate with the outer air and with the box and coact with the box in forming ducts which extend through without communicating with the interior of the drum.

Owing to the double conical form of the box, the same serves to deflect the heat which passes through the drum outwardly against the jacket 1 to increase the heat radiating effect of the drum. Cold air from the lower portion of a room is drawn into the lower tubes 12, passes therefrom and into the box and from the latter, through the upper tubes 12 and the upper drum head back into the room, at a higher point. As the air thus passes through the tubes 12 and the box, the same becomes heated, as will be understood, and hence my improved drum is effective not only for heating by radiation but also for heating air from the room and expelling such heated air back into the atmosphere of the room. Owing to the shape of the box and the arrangement of the tubes which connect it to the heads of the drum, said box and tubes form minimum obstruction to the soot and other solid products of combustion, with the result that the drum does not readily become charged with soot, even when used in connection with the pipe leading from a stove or heater in which soft coal or other bituminous fuel is burned. It will be understood that by first removing one of the heads, which may be readily done by removing the screws 8 that secure such head, all the interior parts of the drum may be readily removed from the casing to facilitate the cleansing of the drum and to also facilitate repairs. It will also be understood that in the event that any of the interior parts should become worn out or broken, the same may be readily replaced by another at slight expense.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent is:—

The herein described drum comprising an

outer casing open at its ends, heads each provided with an opening for the attachment of a smoke pipe, inwardly extending flanges fitting in the ends of the casing, and further
5 provided with air openings and collars around and extending inwardly from said air openings, said collars converging toward the center of the drum, an air heating box of double
10 provided with air openings and collars extending outwardly from said air openings toward the collars of the heads and air heat-

ing tubes in said casing having their inner ends on the collars of the said box and their outer ends on the collars of the heads, said
15 air heating tubes converging toward the box and forming supporting means therefor.

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

LOUIS J. B. SCHNUG.

Witnesses:

C. H. QUINN,
W. E. SHAW.