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PATENTED MAY 28, 1907.

M. J. O'BRIEN.
BASIN OR TRAP FOR STABLE FLOORS.
APPLICATION FILED APR. 5, 1906.

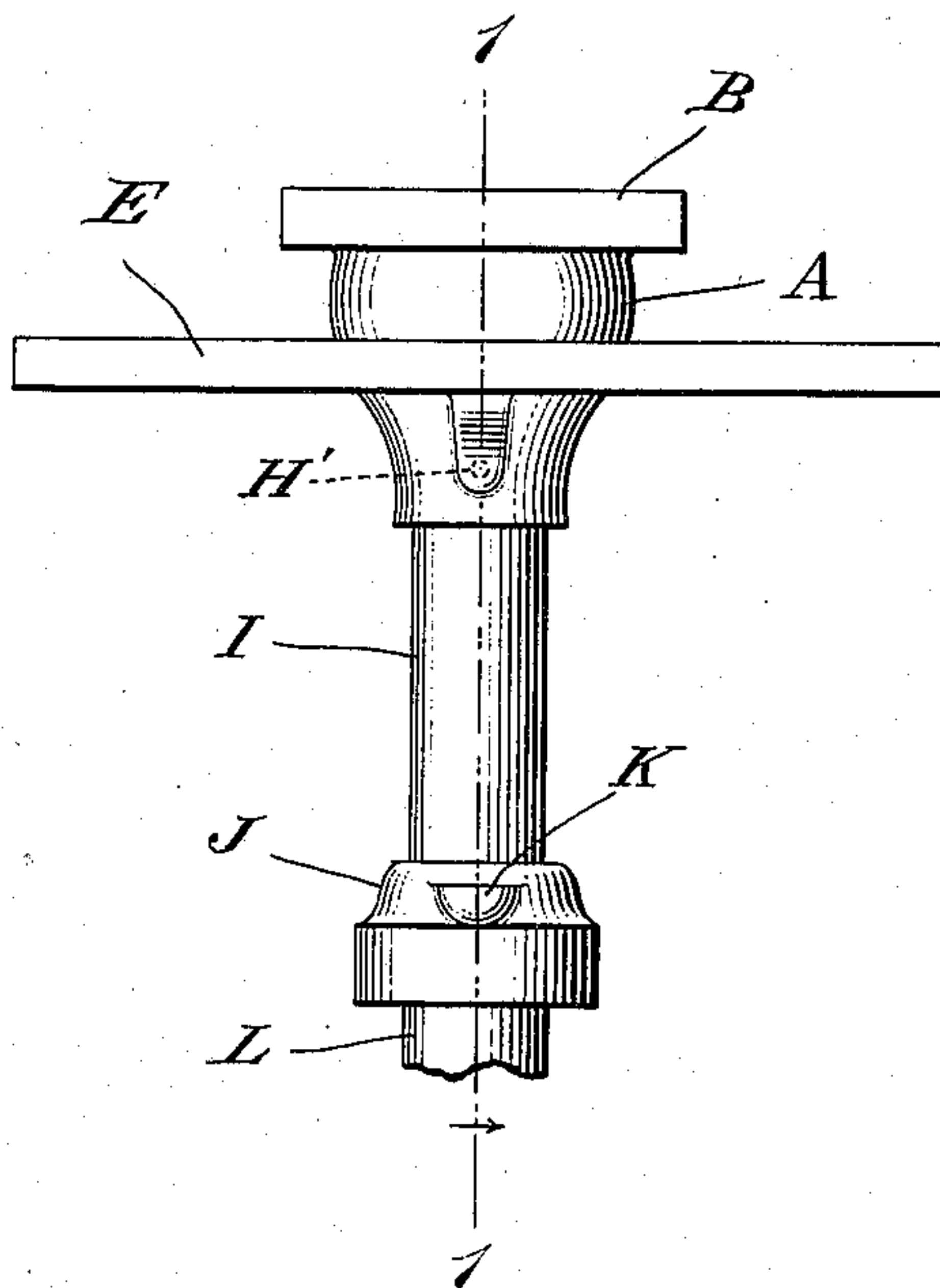
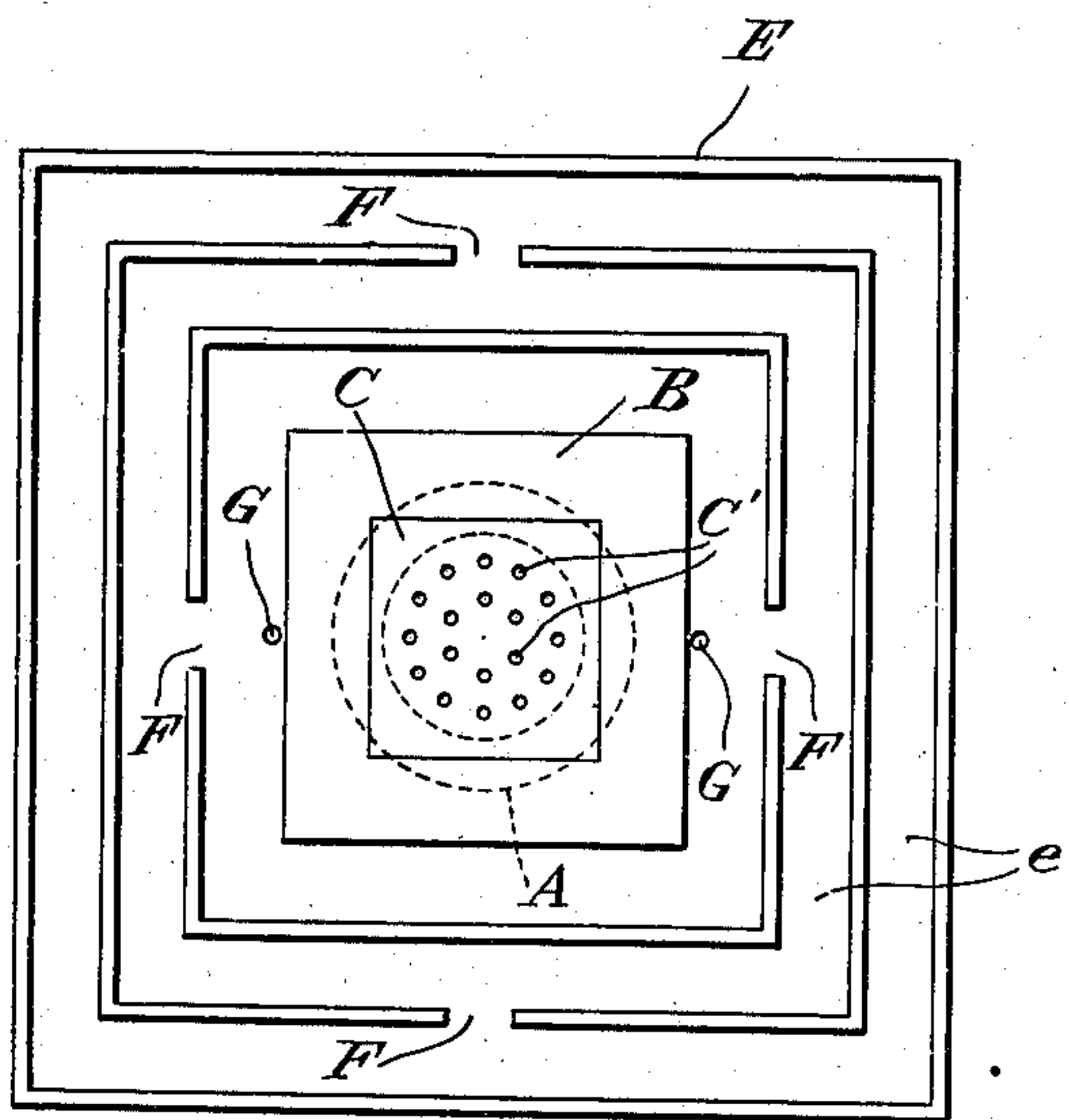
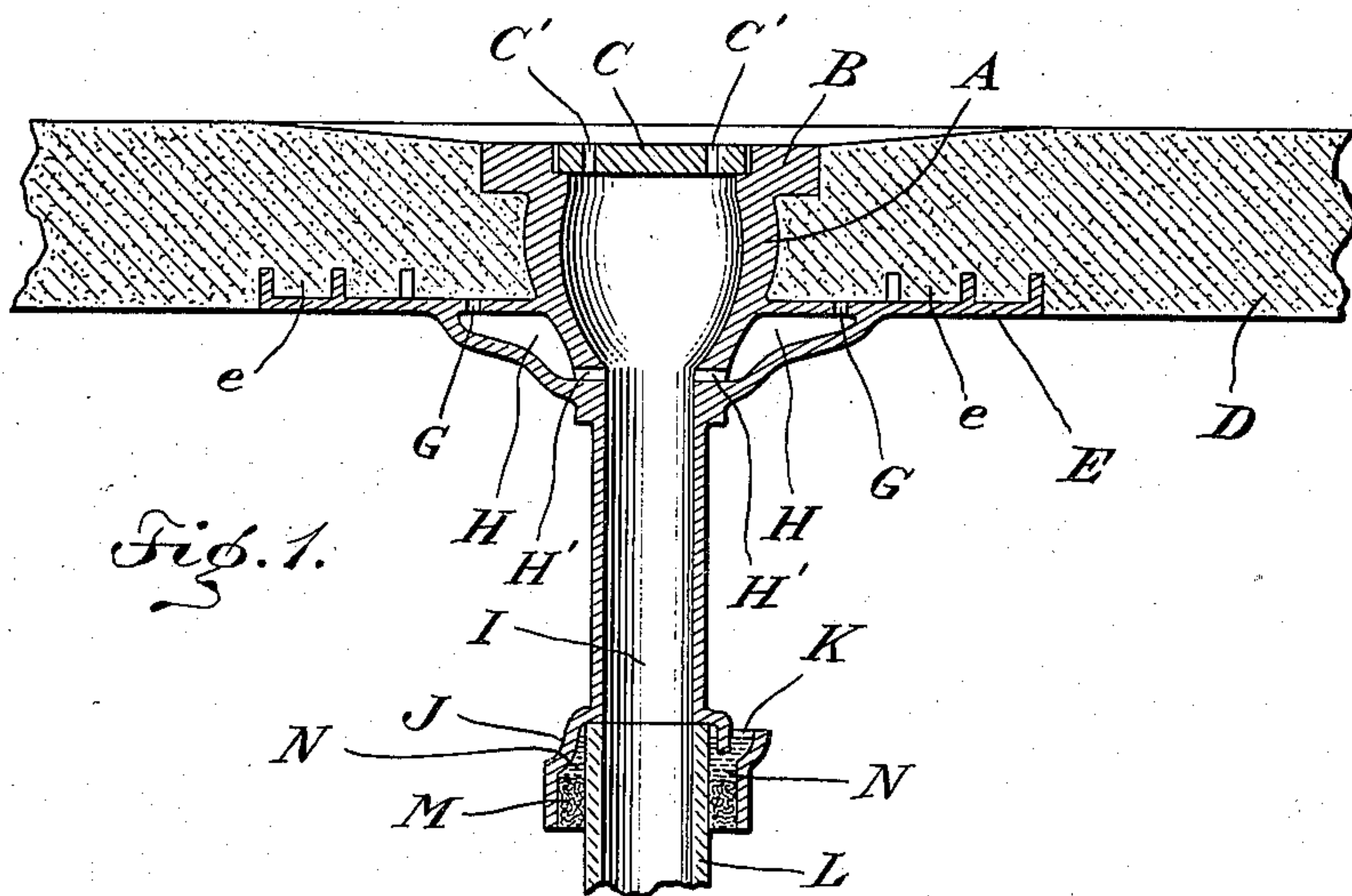


Fig. 2.

Fig. 3.

WITNESSES

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BASIN OR TRAP FOR STABLE-FLOORS.

No. 855,017.

Specification of Letters Patent.

Patented May 28, 1907.

Application filed April 5, 1906. Serial No. 310,049.

To all whom it may concern:

Be it known that I, MICHAEL JOSEPH O'BRIEN, of the borough of Manhattan, in the city of New York, county of New York, and State of New York, have invented an Improvement in Basins or Traps for Stable-Floors, of which the following description, in connection with the accompanying drawings, is a specification.

This invention is for use in connection with stable floors constructed of wood, concrete, asphalt, or the like, and is particularly adapted to stables wherein the horse stalls are located on multiple floors. One of the principal objections or disadvantages in the use of such floors is that, even when concrete or asphalt is used, owing to the expansion and contraction of the flooring material around the basin or trap, it is difficult to preserve an absolutely tight connection between that material and the trap or basin, the consequence of which has been that the water will seep through the openings and find its way from one floor to the ceiling of the room below, causing inconvenience and oftentimes great damage. This objection, it is one of the objects of my invention to obviate, and the result is accomplished by surrounding the basin with a peculiar construction of cast iron pan, which is cast as an integral part thereof and which is adapted to act as a receptacle to retain any moisture which may descend between the flooring material and the basin proper or in near proximity thereto, which moisture either descends from the pan directly into the drain pipe, below the basin, through the respective passages therefor, or is lost by evaporation, depending upon the amount of water or moisture present.

The basin, pan and the drain pipe which makes connection with the pipe leading to the sewer I prefer to cast complete at one operation and in one single structure, with the exception of the grating or cover at the top of the basin which is capable of being removed. In this manner I am enabled to produce a cheap, durable and reliable basin or trap for stable floors which is absolutely water tight and overcomes the disadvantages hereinbefore referred to.

My invention also relates to a novel and useful means of forming the connection between the hub of the cast iron pipe leading from the basin and the pipe leading to the sewer connection, which results in much

saving of time, labor and consequent expense, this feature consisting of a cast iron cup having an outlet, which cup is likewise cast as an integral part of the structure, through which cup an outlet connection is made with the interior of the hub of the cast iron drain pipe, and into which cup molten lead is poured to make the water tight connection between the hub of the cast iron drain pipe and the pipe leading to the sewer connection.

Figure 1. represents an elevation of the structure in section, through the center thereof, showing the same in place in the flooring. Fig. 2. is a plan view of the pan surrounding the basin, which is shown in the center of the drawing. Fig. 3. is a side elevation of the complete structure.

Referring to the drawings: A is the basin proper, being located in a slight depression in the flooring D and having square shaped flange portion B projecting horizontally from the top thereof, in or near the center of which flange portion and located in an offset in the top thereof is the grating C. The pan E is of square or rectangular shape and projects laterally from the outside of the basin at a point near or slightly below the middle thereof. Said pan E is provided with perpendicular flanges *eee*, the two inner flanges being provided with openings or passages *FFFF*. Through these openings, owing to the bottom of the pan being slightly elevated from the center toward the outer sides, the water or moisture gravitates toward and into the innermost section of the pan, wherein, at either side thereof, is located an opening G, through which the water passes into the passageway H, and through the passageway H', connecting with the drain pipe I. The upright flanges *e*, in connection with the horizontal flange B, also serve to embed and hold the structure firmly in the flooring material.

It will be readily understood that the main body of water from the stable floor flows through the grating C, thence through the basin A, and thence through the drain pipe I to the connection L leading to the sewer, and in the use of my device, in the event of the flooring loosening and drawing away from the metallic basin, or cracks appearing therein in the immediate vicinity of the basin, any water descending or percolating there-through will pass onto the pan E and thence through openings G and passages H and H'

into the drain pipe I and thence to the sewer connection.

In the drawings I have shown the basin of circular shape and the pan of square or rectangular shape, but it will be apparent that the shape of the basin and pan may be varied as may be desired to suit the conditions of the installation to be made.

The drain pipe I is shown as a female member having the hub J, and in the casting of the hub it is formed with the cup or opening K communicating with the inner portion of the hub. By means thereof I am enabled to effect the leading of the connecting male member to the hub portion of the female member with great saving of time and labor and with less inconvenience than has heretofore been the practice in making such connections. It avoids the necessity of inverting the pipe and also permits a shorter length of connecting pipe to be used, as is often desirable where the connecting pipe is to be leaded near the ceiling of the room below. In the practice of this method the male member, as shown at L, is inserted into the hub J, a layer of putty and oakum M is temporarily calked into and between the outside of the top or near the top of the male member and the inside of the hub, thus filling the lower part of the space between the two pipes, and making a temporarily tight connection between the inside of the bottom of the hub and the outside of the top of the pipe to be connected thereto, or this space may be closed at the bottom only, by means of a collar or strip of asbestos of the required width. This having been done, molten lead N is poured through the opening of the cup K and fills the lower part of the opening between

the inside of the hub and the outside of the pipe to be connected thereto; the molten lead on the inside of the hub rising by means of gravity to the level of the molten lead in the cup K, and when the lead has become cool the connection is complete and perfect, after which the temporary stopping of putty and oakum or asbestos is removed.

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

1. A floor drain, having a basin open at the top of the floor and means extending outward below the top of the basin having connection with said basin to carry back liquid percolating through the floor.

2. A floor drain, having a draining means open at the top of the floor and a pan extending outward below the top of the draining means and discharging into the same.

3. In a floor drain, the combination with the floor of a draining means extending through the floor and open at the top thereof, and means extending outward from the draining means under the floor having connection with said draining means to carry back liquid percolating through the floor.

4. In a floor drain, the combination with the floor of a draining means extending through the floor and open at the top thereof, and a pan extending outward from the draining means under the floor having connection with said draining means to carry back the liquid percolating through the floor, said pan having interrupted flanges projecting upward into the floor.

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Witnesses:

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