

No. 809,201.

PATENTED JAN. 2, 1906.

A. LUTZ.

RECEIVING BASIN.

APPLICATION FILED AUG. 26, 1905.

Fig. 1.

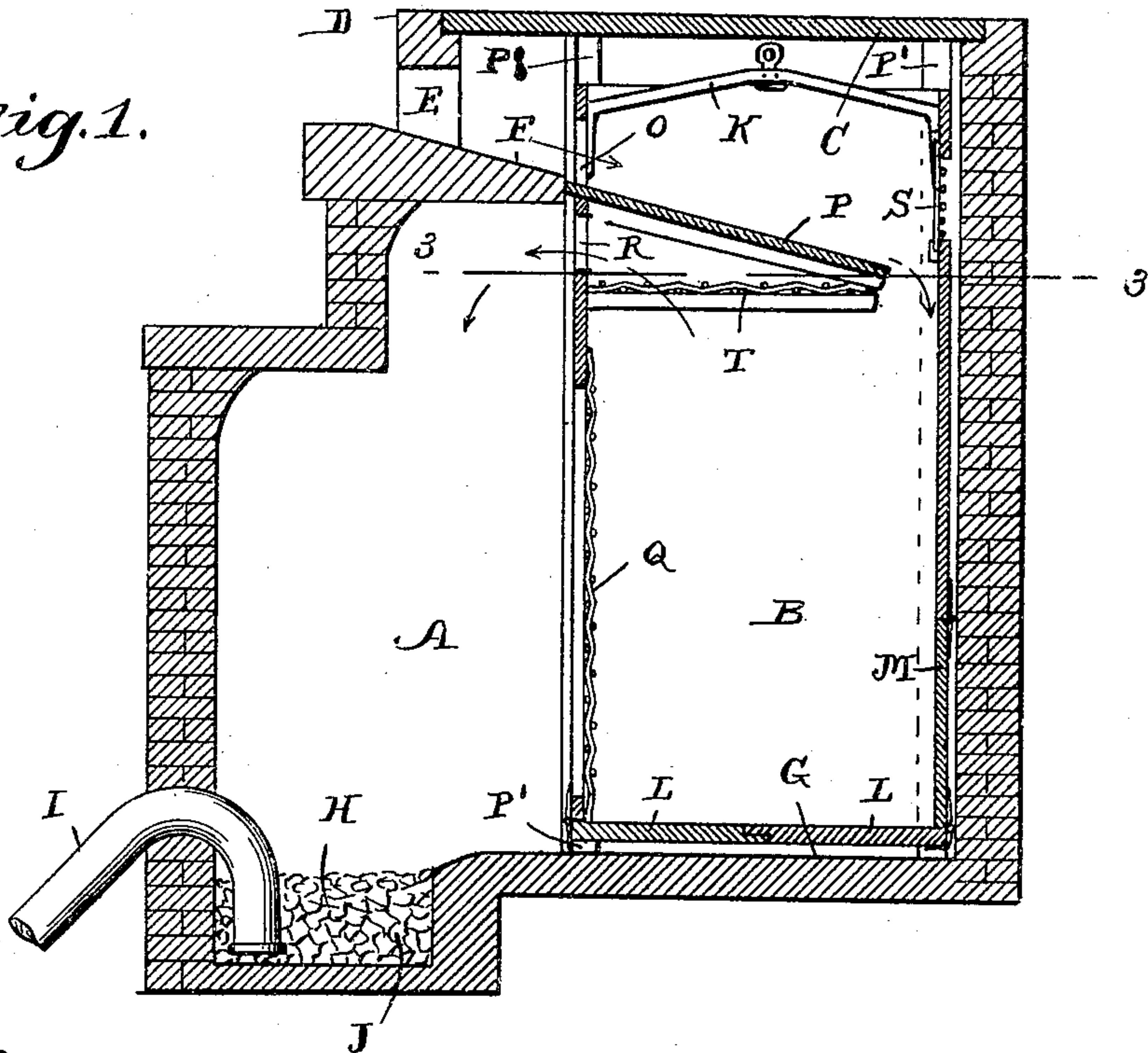


Fig. 2.

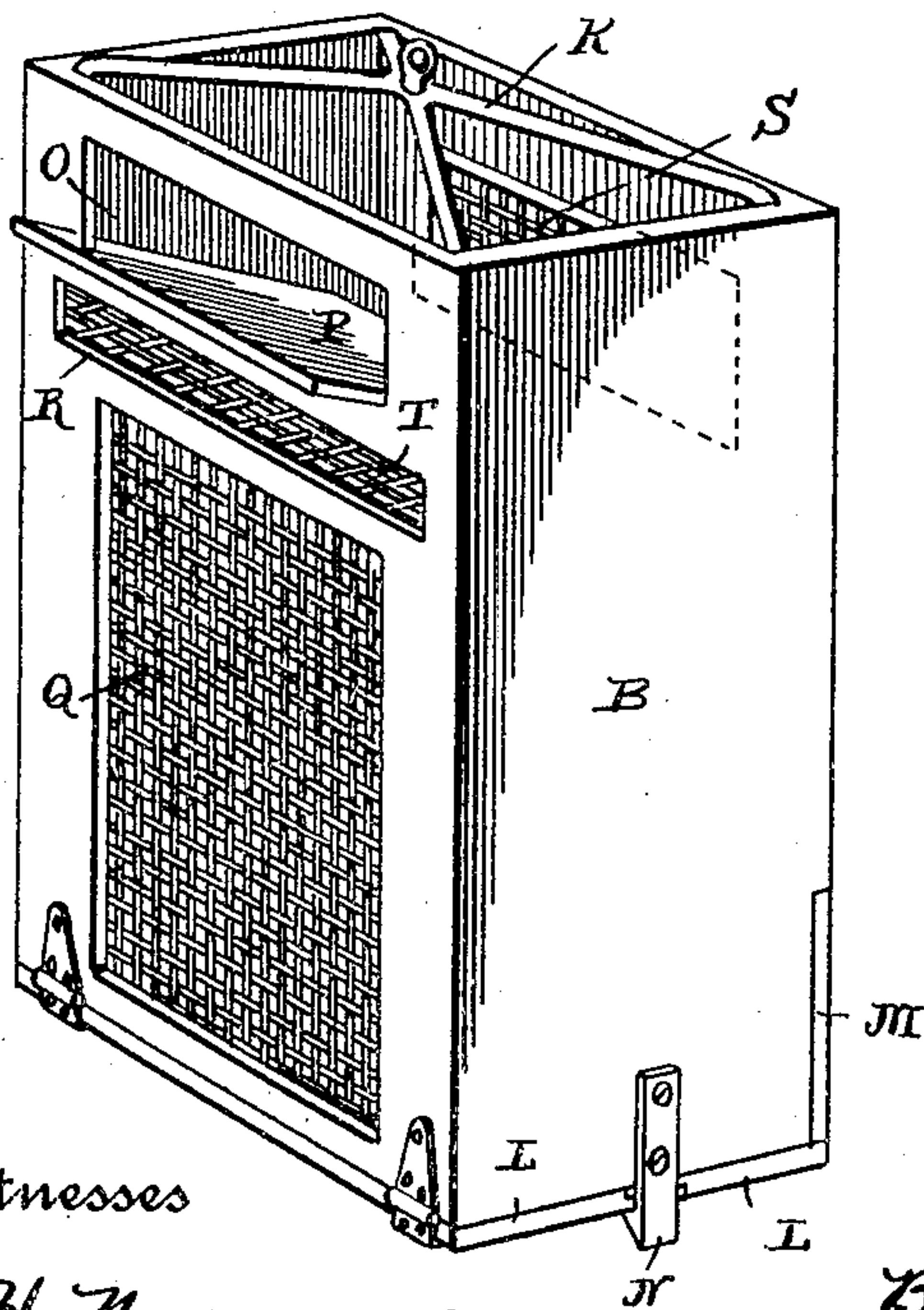
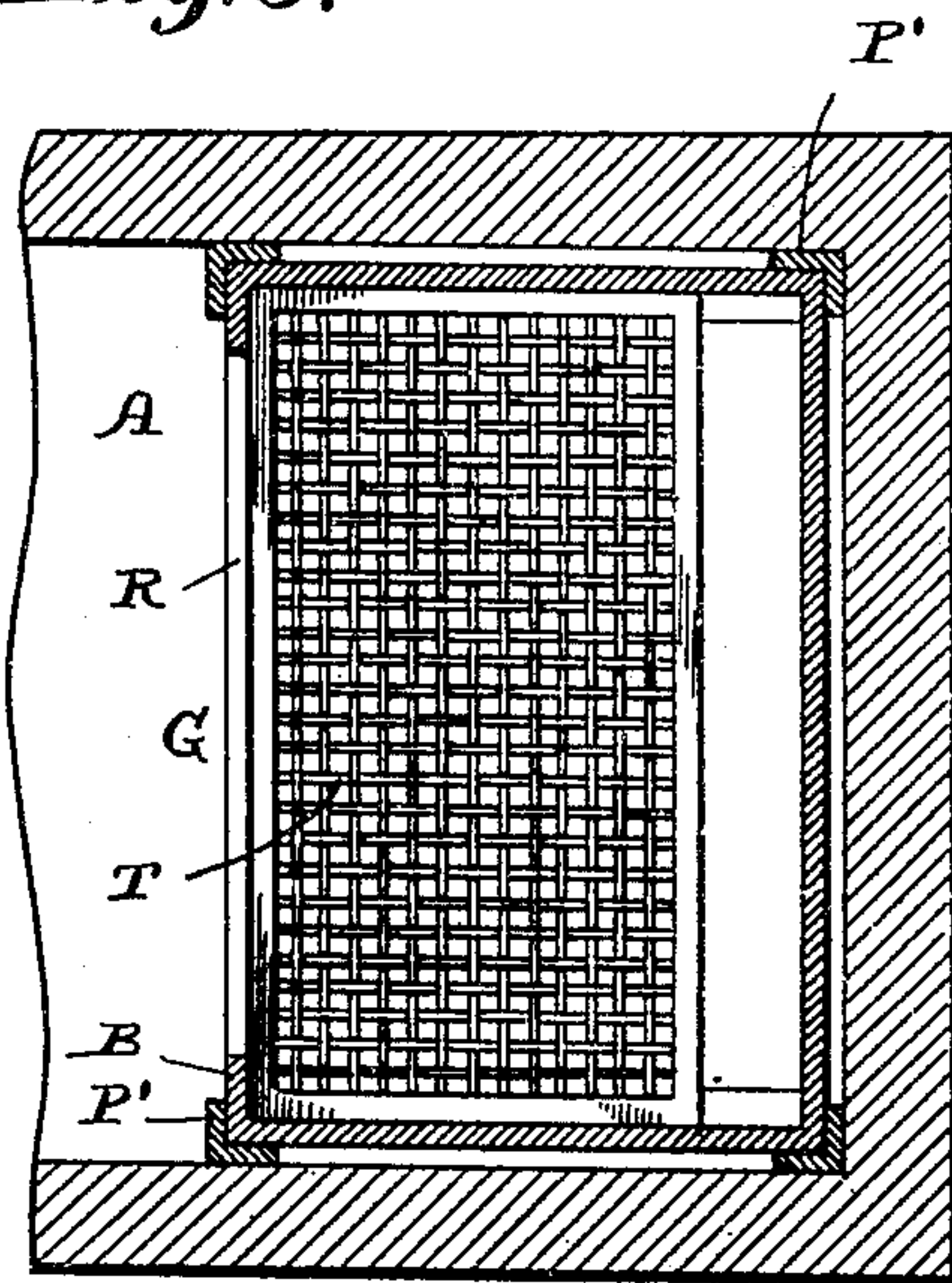


Fig. 3.



Witnesses

R. H. Newman.
Ruth Raymond.

Inventor

Alexander Lutz

By Chamberlain & Newman
Attorneys

UNITED STATES PATENT OFFICE.

ALEXANDER LUTZ, OF NEW YORK, N. Y., ASSIGNOR TO THE UNITED STATES SANITARY AND UTILITY SEWAGE DISPOSAL COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

RECEIVING-BASIN.

No. 809,201.

Specification of Letters Patent.

Patented Jan. 2, 1906.

Application filed August 26, 1905. Serial No. 275,887.

To all whom it may concern:

Be it known that I, ALEXANDER LUTZ, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Receiving-Basins, of which the following is a specification.

My invention relates to new and useful improvements in sanitary catch-basins for cities and towns through which to receive and discharge the surface water from streets into sewers. It is also equally adapted for use in connection with the drainage from stables and other outbuildings.

It is the object of my invention to provide a basin which will properly catch the sediment in the surface water and prevent it from being carried into the sewer and clogging up the same; to provide means for quickly and conveniently removing such collected sediment; further, to provide a catch-basin which is not liable to overflow, and, finally, to generally improve the construction of basins of this class and especially to improve the basin shown and described in Patent No. 658,637, of September 25, 1900, in which I am interested.

Upon the accompanying drawings, forming a part of this specification, similar characters of reference denote like or corresponding parts throughout the several figures, and of which—

Figure 1 shows a central vertical cross-section through my improved receiving-basin and basket. Fig. 2 is a perspective view of the basket removed from the basin. Fig. 3 is a sectional plan view taken on line 3 3 of Fig. 1 of the basin and basket.

Referring in detail to the characters of reference marked upon the drawings, A indicates the basin as a whole, which may be formed of brick, stone, concrete, or other suitable material and contains a basket B of special construction, which will again be referred to.

C represents a detachable cover for the basin and through the opening of which the said basket is removed for discharging.

D indicates the curb-line of the basin, and E the inlet, having an inwardly-extended bottom or chute F, as shown. In plan view this basin is preferably formed substantially

square and is deeper at the front than at the rear.

The basket B before mentioned is removably held intermediate of ways P' of angle-iron and rests upon the main or rear bottom G of the basin.

H indicates the deeper part or pocket in the forward part of the bottom of the basin, which is drained by a siphon-pipe I, that can discharge into a sewer or other suitable place and serves to trap the sewer. This pocket of the basin is filled around the pipe with coarse stone or gravel J to strain the discharge-waters, and said gravel can be removed from time to time, if necessary, for cleaning purposes. The material which is washed in with the street-water and strained from and left in the basket obviously settles therein and in time will fill the basket, whereupon the said basket is then hoisted out through the opening, discharged, and then again replaced.

The basket B is probably best shown in Fig. 2 and is formed of sheet metal with screened openings. The top of the basket contains a suitable hanger K, to which a line may be connected for placement and removal. The bottom of the basket is formed in two parts L L, each hinged to the sides of the basket and secured in their closed position by means of a pair of catches N N, as seen in Fig. 2. The lower part M of one of the sides of which the bottom is hinged is in turn hinged to the upper part of the side, so as to expand and more readily release the load in the basket when the bottom is thrown open. The basket contains a side opening O, which is arranged to register with the curb-inlet E and chute F of the basin, so as to receive the wash from the street. The basket is further provided with an apron P, which is set at an incline and extends from the openings O of the basket to near the back to receive and discharge the street-water in the rear of the basket. The front of the basket contains a large screened opening Q, through which the said street-water escapes to the pocket, said screen serving to strain the water and retaining the coarsest of the sediment within said basket. The basket is further provided with additional outlets R and S, the former being in the front, while the latter is in the rear and provided with a screen. A

further and coarser screen T is arranged horizontally beneath the apron in a manner to allow the water as it rises in the basket with the filling of the same with sediment to pass out through the said screen and the opening R, which would discharge the water into the deeper or front pocket. The back screened opening S serves to permit water to escape from the basket and around its back and bottom should the same become neglected and allowed to fill up and close the opening between the apron and back. Thus it will be seen that I have provided a combined basin and basket which will catch the sediment washed in from the street and retain it in a manner to permit its convenient removal at will and at the same time to do it in a way which will not be likely to overflow in times of excessive flows of water. The water when flowing in from the street is first deposited in the rear of the basket or receiver, which retains all of the heavy deposits. From this receiver the liquid runs into a pocket or smaller receptacle through the screened openings and the gravel contained within the smaller compartment until it is filled up and overflows out through the outlet-pipe, which flow of water forms a siphon from the basin to the street-sewer. This siphon once started will continue to work until the water is drawn from the large receptacle down to the bottom of the smaller one, whereby the seal is broken and air let into the suction-pipe or siphon. The column of water in the siphon falls around the mouth of the pipe or siphon, thus forming a seal for the same and prevents the sewer-gas from escaping. The heavy and coarse substances which are present in the water as it flows into the basin are lodged in the basin and the water drained from the basket or receiver through the several screens as the sediment accumulates, thus leaving the heavy deposits at all times ready to be removed without interference by the presence of water.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a receiving-basin having an inlet and an outlet, of a basket adapted to be removably placed in the same and comprising a sheet-metal receptacle having an inlet on one side with an apron extend-

ing therefrom to the back, and a screened discharge-opening beneath said apron and in the front side.

2. The combination with a suitable receiving-basin having an inlet and an outlet, of a basket within the basin adapted to receive the flow from the inlet, a screened opening in the front of the basket to permit the escape of water and additional openings above said screened opening to accommodate the overflow from said basket.

3. The combination with a receiving-basin, of a removable basket contained therein and comprising an inlet having an apron to conduct the water across the basket, screened openings beneath the apron, a coarse horizontally-disposed screen within the basket beneath the apron, and an additional overflow-opening between said horizontally-disposed screen and the apron whereby the water is caused to rise through said horizontal screen and escape through said overflow-opening.

4. The combination with a receiving-basin, of a basket removably placed therein and having an inlet with an apron extended from the same across the basket and adapted to discharge the water in the rear of the basket, a vertically-disposed screened opening beneath the apron in the front of the basket, and an additional screened opening in the rear of the basket above the apron to accommodate an overflow of water.

5. The combination with a receiving-basin provided with vertically-disposed ways, of a basket adapted to be removably supported intermediate of said ways and containing an opening to receive the inflow of water, an apron extended from said inlet to deflect said inflow of water against the rear of the basket, a screened opening in the face of the basket beneath the apron, additional overflow-openings in the face of the basket and beneath the apron, a horizontally-disposed screen for said opening, and an additional screened opening in the rear of the receptacle above the apron.

Signed at New York, in the county of New York and State of New York, this 8th day of August, A. D. 1905.

ALEXANDER LUTZ.

Witnesses:

JAMES E. WALSH,
JOSEPHINE BRADDICK