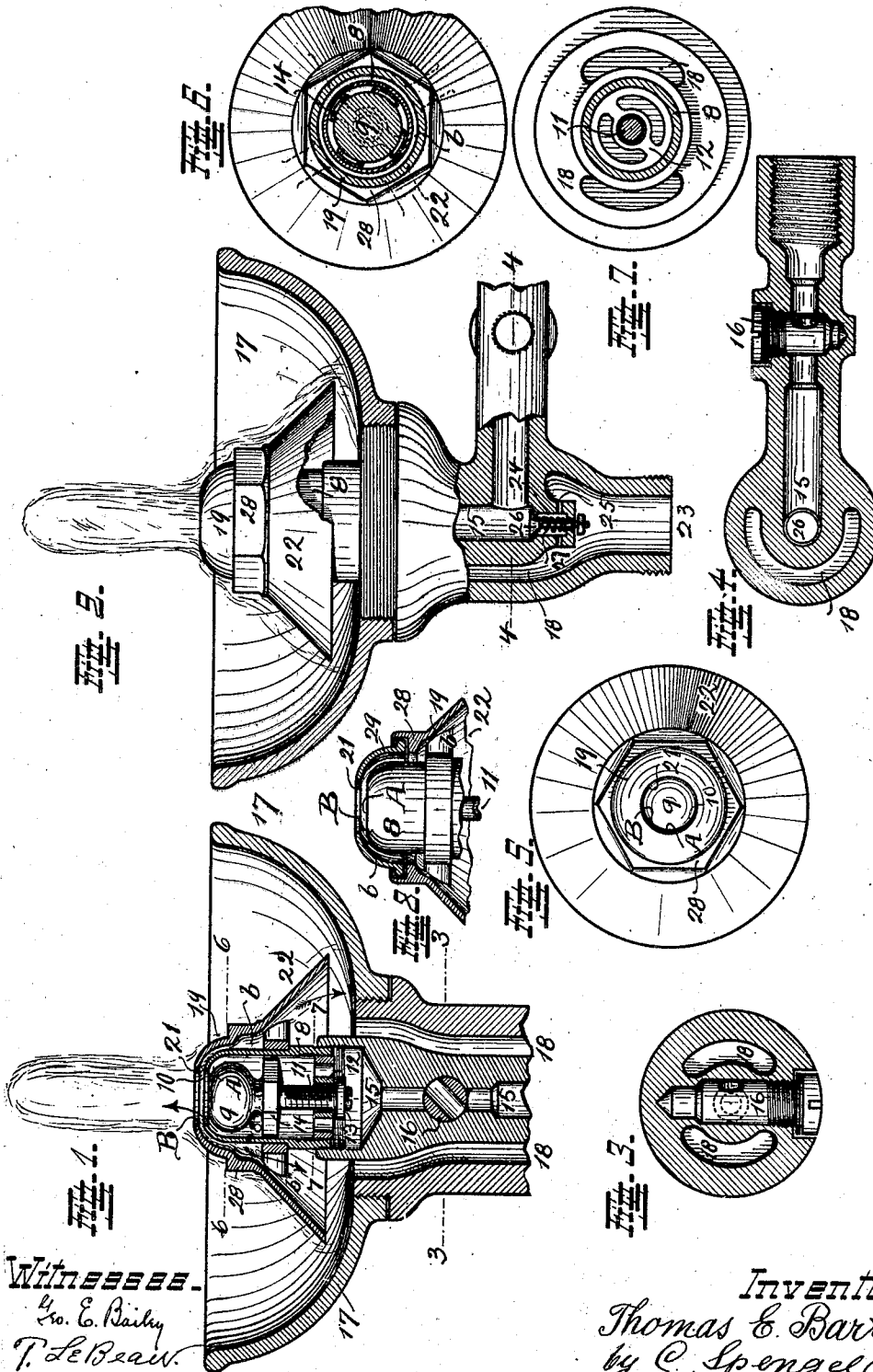


T. E. BART.
 FOUNTAIN DISCHARGE HEAD.
 APPLICATION FILED OCT. 7, 1912.

1,066,243.

Patented July 1, 1913.



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UNITED STATES PATENT OFFICE.

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FOUNTAIN DISCHARGE-HEAD.

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Specification of Letters Patent.

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Application filed October 7, 1912. Serial No. 724,240.

To all whom it may concern:

Be it known that I, THOMAS E. BART, a citizen of the United States, residing at Cincinnati, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Fountain Discharge-Heads; and I do declare the following to be a clear, full, and exact description of the invention, attention being called to the drawing which accompanies this application and forms a part thereof.

This invention concerns fountains, more particularly those of the type known as sanitary drinking fountains and which are so arranged as to permit imbibing of water without requiring or subjecting the user's mouth to contact with any part of the outlet. These fountains are used in public places, schools, institutions, and by reason of this general use and necessarily free access, they are liable to many contingencies due to such exposed condition. They may be destroyed or injured accidentally or intentionally obstructed or polluted by mischievous persons or used in an improper manner, particularly by children.

The object of my invention is to construct such a device in a manner which renders it sufficiently strong to meet general purposes in view of its exposed condition, to cause discharge of the water in an attractive manner and agreeable to partake, and to prevent improper use, obstruction or pollution.

The invention consists of the particular construction as hereinafter described and claimed and as illustrated in the accompanying drawing, in which:—

Figure 1 illustrates my invention in a vertical cross-section of the discharge head shown in connection with adjacent parts. Fig. 2, in a similar view shows my invention modified as to the manner of arranging the support of the discharge head. Fig. 3, is a horizontal section taken on line 3—3 of Fig. 1. Fig. 4, is a horizontal section taken on line 4—4 of Fig. 2. Fig. 5, is a top-view of the discharge head. Fig. 6, is a horizontal section of it taken on line 6—6 of Fig. 1. Fig. 7, is a horizontal section taken on line 7—7 of Fig. 1, and shows also top-view of the support for the dis-

charge-head. Fig. 8, in a view similar to Fig. 2, shows a modified construction of the upper part of the head.

The discharge outlet of the head is arranged in form of an annular orifice as shown at A, so as to emit the water in shape of an elongated cylindrical bulb-shaped bubble of a diameter and height which permits convenient partaking of the water. This orifice is formed between two members, one of which is a cylindrical nipple 8 having a circular opening in its contracted apex. The other is a solid center-core 9, provided with in this nipple so as to restrict the opening therein and spaced from the inner side of the nipple. This core, as to its upper part at least, is substantially globular, and the contracted part of nipple 8 extends inwardly over it and conforms to the shape thereof. The edge around the opening in the contracted part of the nipple forms a lip between which and the core, the annular orifice is produced. This lip, by projecting over the space between nipple and core, conceals this space and successfully prevents obstruction of the outlet, particularly by such objects as sticks, pins, etc. The core is rigidly mounted within the nipple and for convenience in manufacture and to facilitate assembling, it is provided with a screw-threaded stem 11, which is seated in a socket formed in a bridge 12 and sustained within the nipple. A lock-nut 13 is provided on the stem to secure the assembled position of the core, and braces 14 on it hold the core centered within the nipple.

Water is supplied through a conduit 15, the volume being adjusted by a regulating screw 16 traversing the conduit and provided with a port. The flow may be a continuous one, that is during hours or seasons of possible use, and subject to control by a stop-cock to be turned on or shut off. Or a valve or other suitable fitting, preferably closing automatically, may be provided to be manipulated by hand or foot each time when water is to be taken. The water not consumed is received in a basin, or bowl and passes off through waste-ducts 18.

Manipulation of the discharging water, sometimes indulged in by children, by obstructing the free discharge with the hand

or fingers, and by squirting water sidewise through the restricted part of the outlet which remains open, is prevented by a hood 19, supported above nipple 8. It has an opening in its upper part concentric with the opening in the nipple and conforms in shape to this nipple but is spaced therefrom so as to form below its inturned annular edge or lip 21, and between this lip and lip 10 of the nipple, an additional annular orifice B above orifice A. This orifice, arranged in a vertical cylindrical plane, leads outwardly and downwardly to a passage *b* formed below it between nipple and hood and open toward the bowl where it terminates close to the bottom thereof. The lower part of this hood is conically extended as shown so as to form a cap or fender 22 which protects the open end of the waste-ducts 18. It will now be seen that it is practically impossible to tamper with the outlet orifice A, in the manner indicated, in view of the inter-position of hood 19 above it. Nor does closing of the open end of the hood avail anything, because it leaves the concealed orifice B below it and leading to passage *b* still unobstructed. As a result the water discharging from orifice A, if obstructed in its free passage upwardly through the hood, is diverted to orifice B which it enters and from which, through passage *b*, it returns to basin 17.

The hood may form an integral part of nipple 8, that is both may be formed in one casting, or it may be otherwise connected.

This discharge-head as described may be mounted in any suitable way, for instance upon a pedestal as shown in Fig. 1, or upon a bracket as shown in Fig. 2, supply and waste-ducts being contained accordingly in either one of these supports. Arrangement for further connections to these devices, to permit necessary communication of their ducts, with service pipe and sewer respectively, is provided for in a manner customary in the premises. In case a pedestal is used, these ducts may be carried down through it. In the bracket-form, (Fig. 2) a nipple 23 is shown which permits connection of a waste-pipe. Where the flow is not a continuous one, it is preferable to drain the water from the fountain which remains therein after every use. The discharge-head and the supply duct below it are thereby kept normally empty and pollution of the water therein is prevented likewise freezing during the cold season of fountains used out-doors. This drainage may be obtained by using any of the customary devices provided and found on the market for this purpose and combining the features of a drain-cock with the valve which controls the supply.

In Fig. 2, I show a pocket 24, provided with holes 25, through which the water

drains off as soon as the supply is cut off. The loss through these openings, while the water is turned on, is insignificant, but if necessary, may be prevented by a valve 26 held normally open by a spring 27, which yields when the pressure is on and closes the pocket.

The head is attached to its support in any approved manner preferably by a screw-connection as shown. Manipulation for this purpose is facilitated by provision of a polygonal portion 28, below hood 19.

While it is neither necessary nor desirable that the user's mouth should contact with the fountain, nevertheless the consequences of such a contingency may be palliated by making the upper part of hood 19, of porcelain, glass, china, or analogous vitreous material as shown at 29 in Fig. 8.

Having described my invention, I claim as new:

1. A discharge-head for drinking fountains, comprising a cylindrical nipple provided with an inturned lip at its upper end, an imperforate core within the nipple and below the lip thereof and spaced therefrom to form an annular discharge opening between the two, a stem on this core, a bridge within the nipple to rigidly support the stem and braces on this latter to center the core within the nipple.

2. In a discharge head for drinking fountains, the combination of a hood which has in its apex a circular opening arranged in a horizontal plane and which is contracted toward this opening around which it terminates in form of an inwardly curved lip, an imperforate core rigidly supported below the opening in this hood and spaced all around from the same but larger than the opening therein, and a nipple positioned between this hood and core and spaced from each, said nipple having also in its apex a circular opening concentric with the opening in the hood and arranged in a plane below the same, the nipple being contracted toward this opening and terminating around it in form of an inwardly turned lip, whereby between this latter and the lip above and the core below it, superposed annular orifices result of which the lower orifice serves as a discharge outlet, while the other one serves to divert this discharge downwardly in case the opening in the hood is obstructed.

3. In combination, a discharge head for drinking fountains, a bowl below the same to collect the waste-water therefrom, a support for the bowl which contains upwardly open waste-ducts to receive the waste-water from the bowl, said discharge-head comprising a discharge nipple and an upwardly open hood which terminates above the discharge nipple and is spaced therefrom to produce a lateral outlet and an annular pas-

sage in connection therewith, said outlet
being adapted to receive the water from the
discharge nipple in case normal discharge is
interfered with after which said passage
5 serves to guide the diverted water directly
toward the waste ducts, the lower part of
said hood being diametrically enlarged and
extended toward the bottom of the bowl, to
protect also the open ends of the waste ducts,
10 but closely spaced at its lower edge all

around from said bottom, to permit the
waste-water in the bowl to reach the waste-
ducts.

In testimony whereof, I hereunto affix my
signature in the presence of two witnesses. 15

THOMAS E. BART.

Witnesses:

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