

(No Model.)

2 Sheets—Sheet 1.

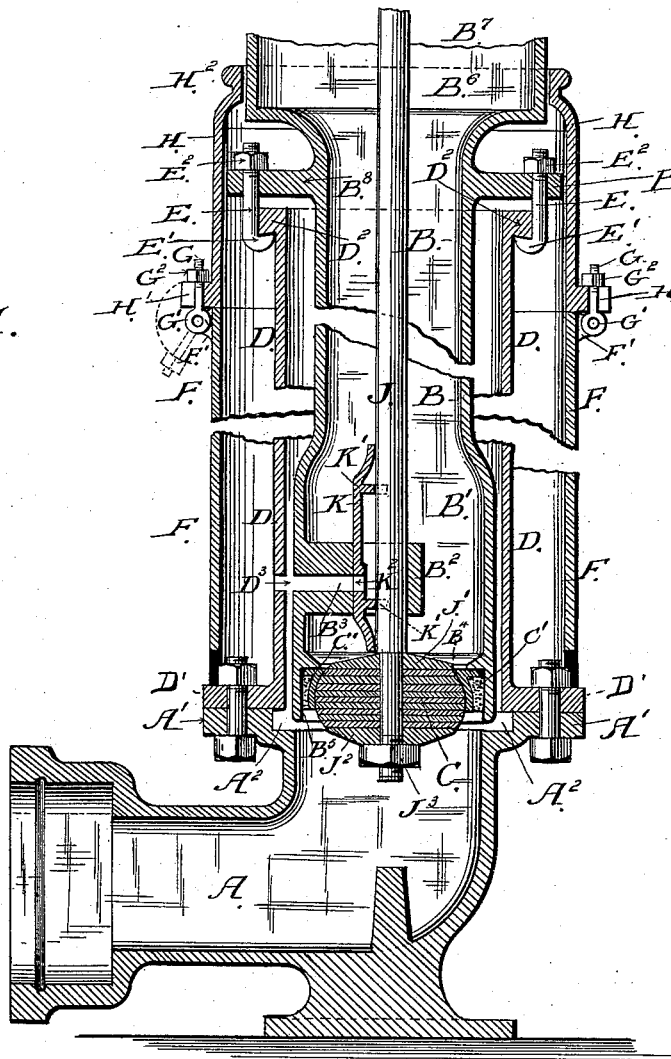
A. H. MELLERT.

FIRE HYDRANT.

No. 381,940.

Patented May 1, 1888.

Fig. 1.



Witnesses.

Walter Fowler,
Daniel Clark.

Inventor.

Albert H. Mellert,

By *his* Attorney

Thomas P. Quisey

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Fig. 2.

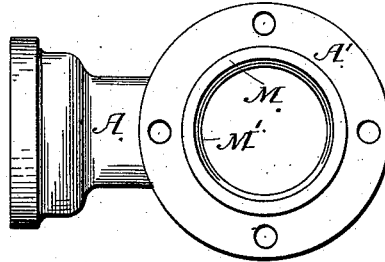


Fig. 3.

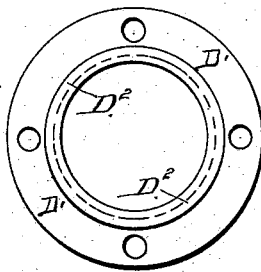


Fig. 4.

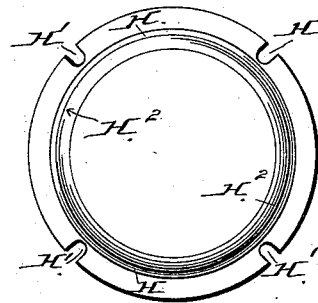


Fig. 5.

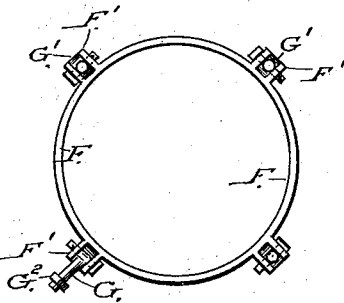
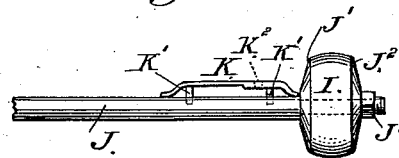


Fig. 6.



Witnesses.

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UNITED STATES PATENT OFFICE.

ALBERT H. MELLERT, OF READING, PENNSYLVANIA, ASSIGNOR TO THE
MELLERT FOUNDRY AND MACHINE COMPANY, (LIMITED,) OF SAME
PLACE.

FIRE-HYDRANT.

SPECIFICATION forming part of Letters Patent No. 381,940, dated May 1, 1888.

Application filed July 15, 1886. Serial No. 208,015. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. MELLERT, a citizen of the United States, residing at the city of Reading, county of Berks, State of Pennsylvania, have invented a new and useful Improvement in Fire-Hydrants, of which the following is a specification.

This improvement relates more particularly to the class of fire-hydrants provided with a single foot-valve, the usual stand-pipe, and frost-case.

The object of the improvement is to simplify the construction of the same, give increased facilities for examination and repairs, and generally to increase its effectiveness as a fire-hydrant.

It is a matter of considerable importance in a water-plant, especially for cities, that the fire-hydrants should be of the most simple character, not liable from fair usage to get out of order and prove ineffective in time of need. Being practically conversant with the details and manufacture of many varieties of fire-hydrants, I am aware that the majority of those in use do not comply with the above requirements, but are needlessly complicated, and are therefore liable at any moment to fail in effectiveness.

The drawings herewith, forming a part of this specification, will serve to show the nature of my improvements, similar letters of reference indicating similar parts throughout.

Figure 1 represents in vertical section a fire-hydrant having my improvements attached thereto; Fig. 2, a plan of the goose-neck, showing the seat-plate for the foot-joint of the hydrant; Fig. 3, an end view of the upper end of the stand-pipe; Fig. 4, a plan of the upper portion of the frost-case; Fig. 5, an end view of the frost-case at the joint, showing the bifurcated ears for the swinging bolts; Fig. 6, a detached view of the valve, its spindle or stem, and waste-water regulator.

In the drawings, A represents the ordinary goose-neck for connecting the street-main with the hydrant; A', the base-flange, having a recess, A², in its face for the reception of a seating for the hydrant-foot.

B represents the hydrant, a portion of which

is shown, sufficient to indicate my improvement thereon.

B' is the valve chamber; B², a waste and guide lug; B³, a waste-hole, open when the valve I is closed and closed when the valve I is open; B⁴, an abutment for the support of the foot-valve seat; B⁵, my improved joint for the foot of the hydrant; B⁶, the upper chamber of the hydrant; B⁷, the plug portion, which may have any desired number of hose-nozzle connections adapted to the area of the supply-pipe connection with the street-main; B⁸, flange or ears for compressing the hydrant upon the foot-seat joint.

A valve seat, C, of brass or non-corrodible metal, is secured in the lower end of the chamber B' by pouring lead or other suitable metal, C', around it and calking the same to lock it in place.

The stand-pipe D has a lower flange, D', and is bolted directly upon the goose-neck flange A', overlapping the foot-seat plate M, thus retaining the same in place. At the upper end of the stand-pipe D, which terminates at from one to four inches above the pavement, I use a narrow flange, D², having its lower face preferably undercut, as shown, the outer diameter of said flange coinciding with the inner edges of the holding-down bolts E in the flange or ears B⁸ of the hydrant. The bolts E have hook-heads E', adapted to catch beneath the flange D², and nuts E² for tightening or drawing down the hydrant upon the foot-seat joint M'. By this arrangement I am enabled to adjust the hydrant B so that the hose-nozzles shall face to any desired point independent of the goose-neck connection with the street-main. Merely loosening the nuts E² permits the swinging of the hydrant around upon its foot-seat joint M' until the desired position is secured; then, tightening up the nuts E², the hydrant is ready for service.

D³ is a waste-hole for relieving the stand-pipe and hydrant after the valve I is closed.

The foot-joint M' may be made flat, angular, or grooved, as shown, preference being given to the latter form, which will prevent the lodging of dirt upon the same when the hydrant is lifted out for examination or re-

pairs. The frost-case I construct in two lengths, terminating the lower portion, F, about from four to six inches below the pavement, and providing it with bifurcated ears F', in which eyebolts G are pivoted. The upper portion, H, is provided with slotted ears or a slotted flange, H', and is contracted at the top and provided with a neck, H², adapted to permit the hydrant to slide freely therein, the frost-case in its normal state being combined as an integral case by the bolts G with eyes G' pivoted in the bifurcated ears F', and nuts G². On loosening the latter the bolts may be swung out of the way without risk of losing parts of the same, and the case H being raised above the flange B² of the hydrant the same may be released and lifted out for examination or repairs by first loosening the nuts E² sufficient to drop the hook-head E' clear of the flange D²; then, turning the hooked portion outward, the hydrant is free.

The valve I is of the usual construction, and the spindle or stem J is attached to the same and operated in the usual manner. The lug B² of the hydrant has an oblong vertical perforation therein, against one end of which the spindle slides, and against the opposite end a spring-piece, K, having legs K', setting in shallow holes in the spindle, and a waste-hole, K². The latter, in the movement of the spindle and spring-piece, vertically covers or uncovers the waste-hole B³, thus discharging from the hydrant any water held therein on closing the foot-valve of the same.

J' is a fixed collar, J² a washer, and J³ a nut for securing the valve upon the stem or spindle. This portion of the hydrant is old, and therefore I make no claim to the same. It will be evident that this arrangement of a fire-hydrant is both novel, useful, and not liable to become inoperative from derangement of parts, and is comparatively inexpensive to manufacture.

I am well aware that I am not the first to provide for the adjustment of the position of a fire-hydrant's nozzles relative to the curb of the pavement, as the same is shown in Patents No. 80,143, dated July 21, 1868, to Z. Coffin, and No. 196,000, dated July 30, 1877, to J. Flower. In the former a hooked ledge

in the goose-neck flange, with hooked bolts adapted thereto and extending upward to the ground-level, secures the plug rotatably in place. In the latter a clamping-collar secured to the goose-neck, having bolts with eyes secured between the ears of the clamp and extending upward to ears upon the plug, secures the same, as before, in rotatable connection with the goose-neck, whereas in my improvement the hooked flange of an independent stand-pipe is placed at its top at or near the surface of the ground, whereby short bolts are used, a more ready connection and adjustment is made at less expense, and may be readily inspected by lifting the upper portion of the frost-case above the same.

I am also aware that I am not the first to use swinging eyebolts as a quick mode of breaking and re-making a joint, as their use is common on some of the valve-chests of steam-pumps, and their use is also shown in German Patent No. 10,674 of 1880. I do not, therefore, broadly lay any claim to the same; but I believe that I am the first to use such bolts in combination with a divided frost-case, as shown and described, and therefore claim the combination therewith.

Having shown my improvement, described its construction, and cited its advantages over the ordinary hydrant, I desire to claim as follows:

The combination, with a goose-neck having a recess on its upper face, a flange, A', and a foot-joint seated in said recess, of a stand-pipe bolted to the goose-neck and overlapping the foot-joint, a hydrant located in the stand-pipe and having a flange, B², a flange, D², on the upper end of the stand-pipe, bolt-and-nut connections between the flanges, said hydrant having an abutment, B⁴, a valve-seat fitting against said abutment, a filling to hold the valve-seat in place, a valve, and a frost-case of two sections removably secured together and inclosing the stand-pipe and hydrant, substantially as set forth.

A. H. MELLERT.

Witnesses:

P. D. WANNER,
KATE WANNER,
F. PIERCE HUMMEL.