

(No Model.)

J. J. HENTZE.
COUPLING FOR BATHING APPARATUS.

No. 514,321.

Patented Feb. 6, 1894.

Fig. I.

Fig. II.

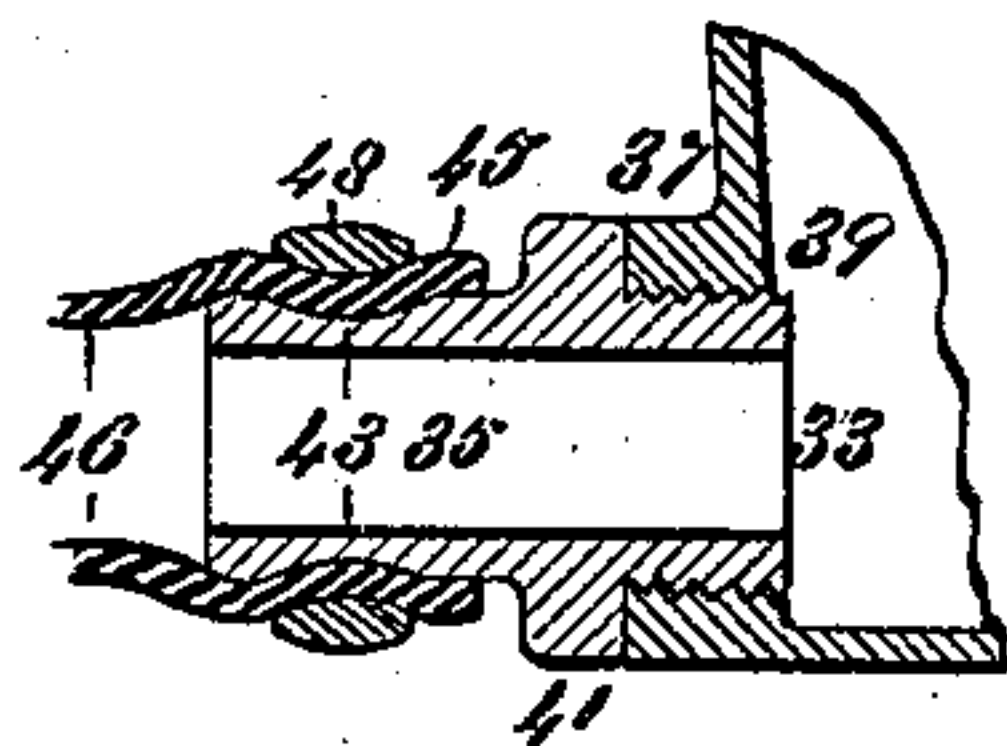


Fig. III.

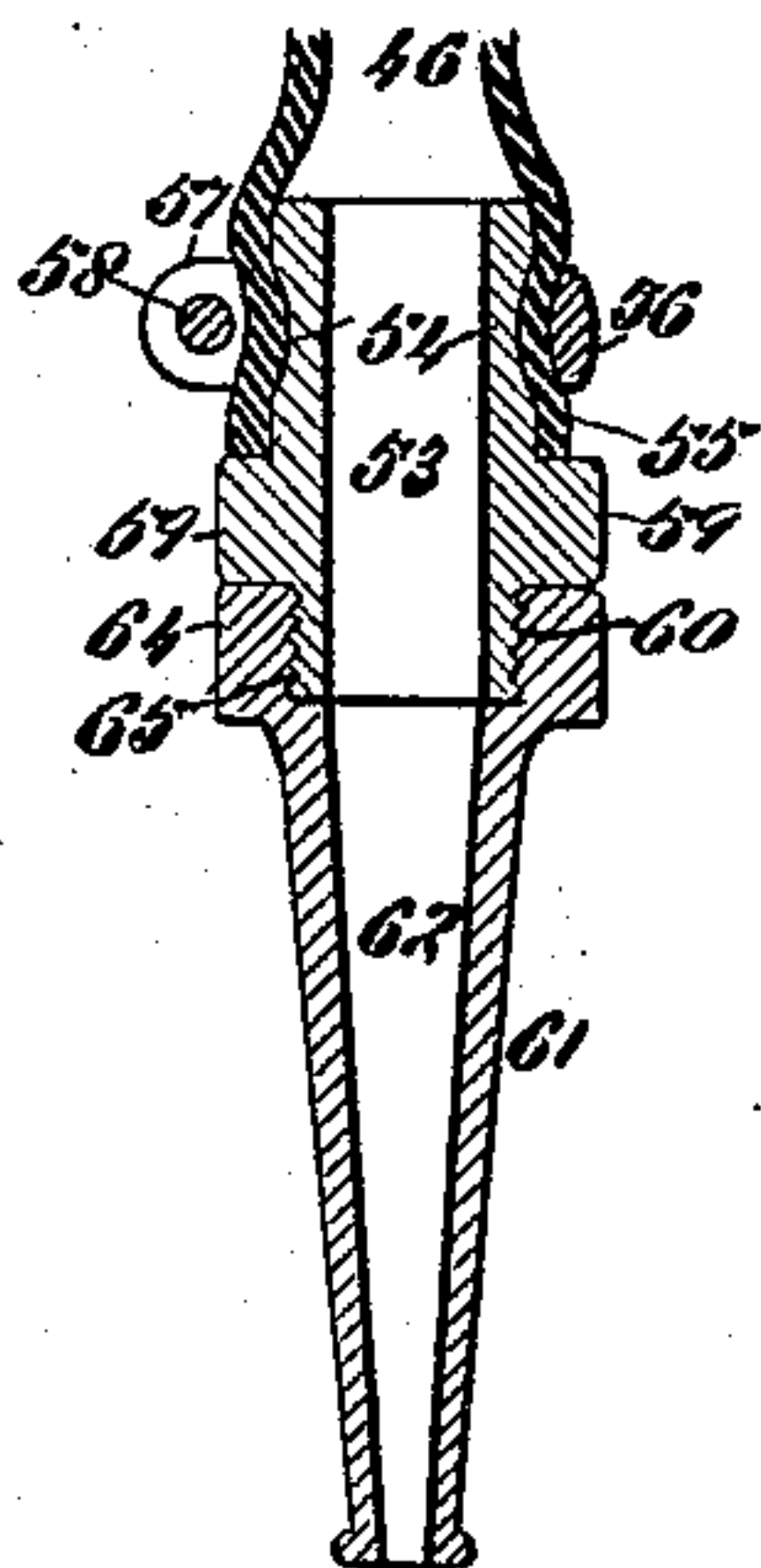


Fig. IV.

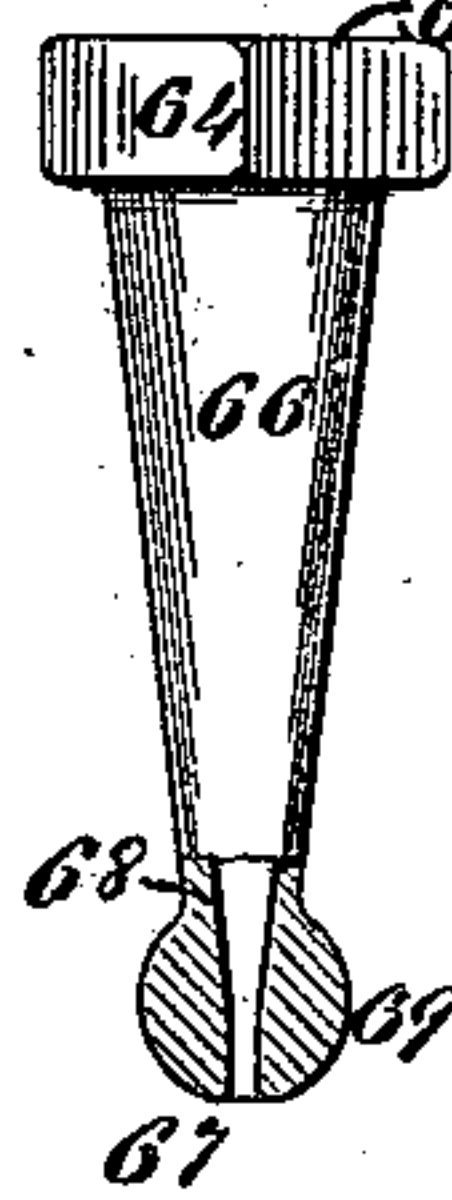
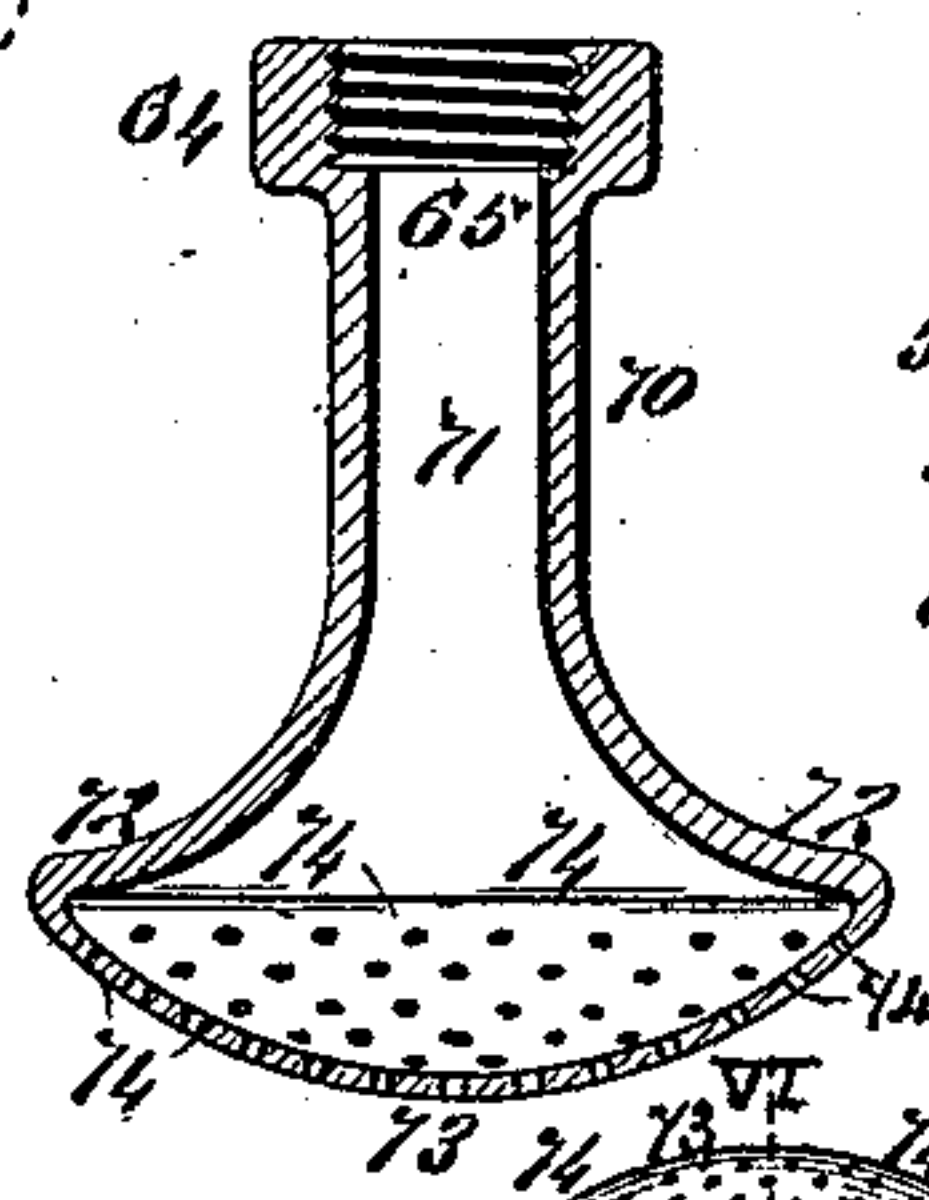


Fig. VI.



Attest;

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Fig. V.

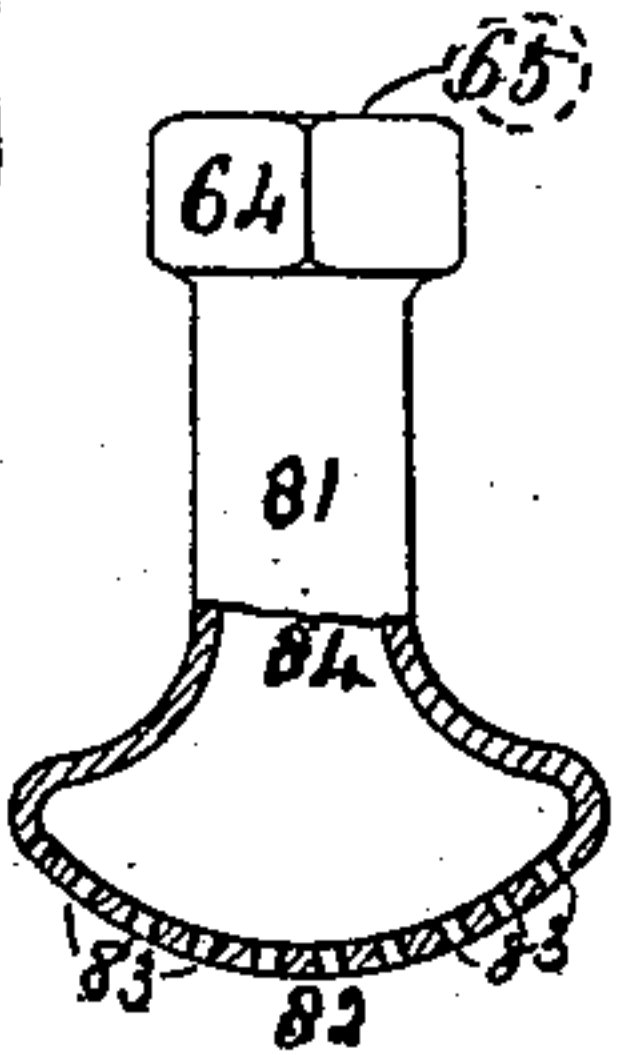


Fig. VII.

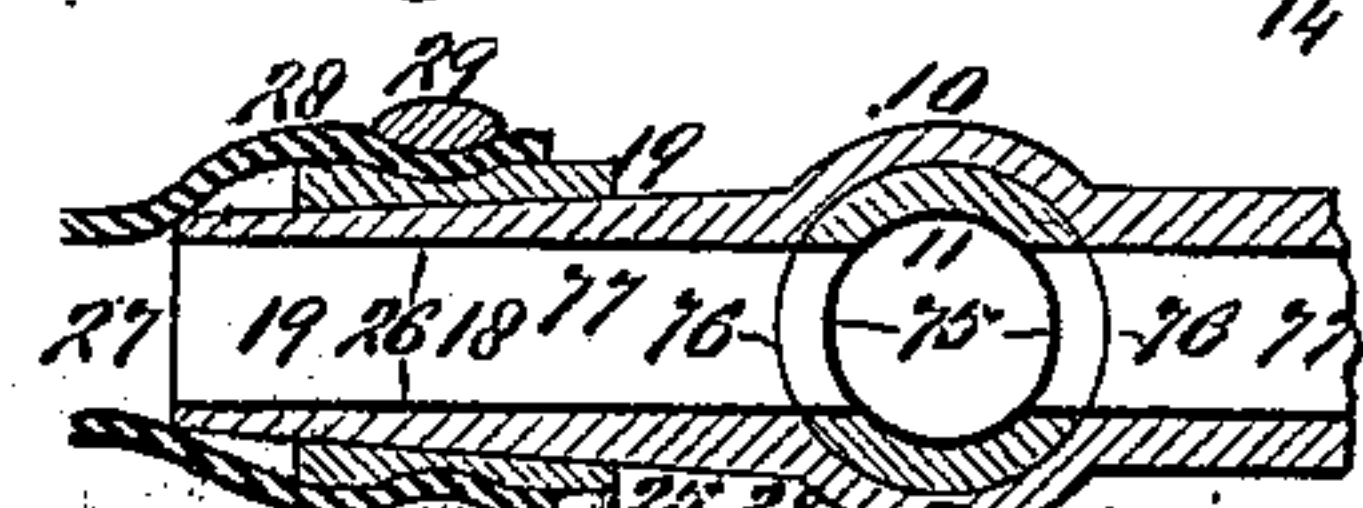


Fig. IX.

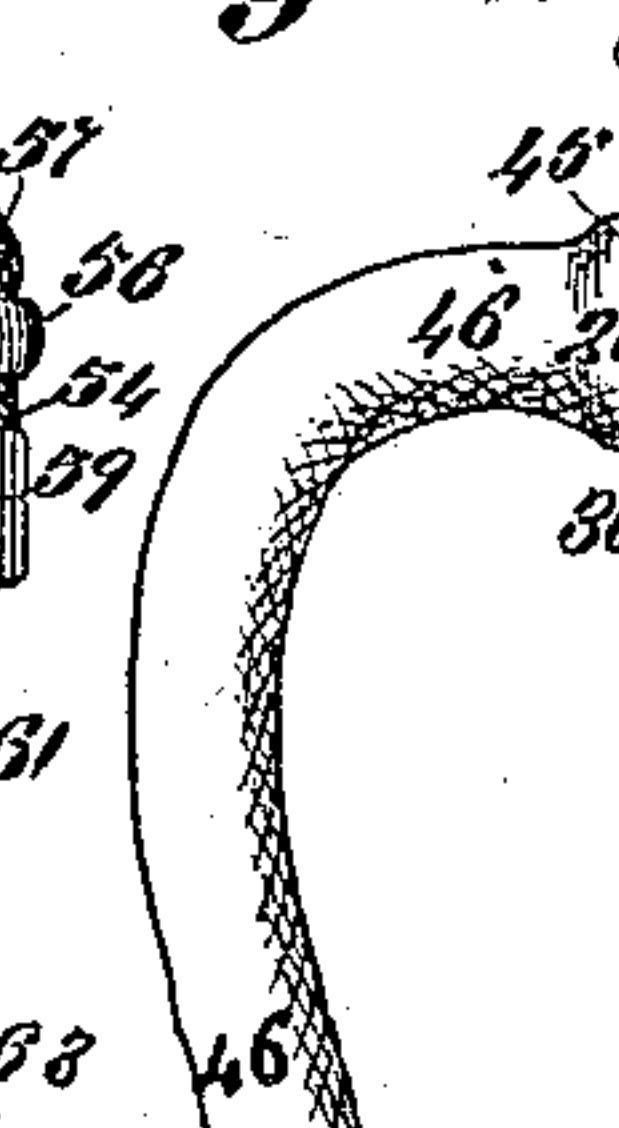
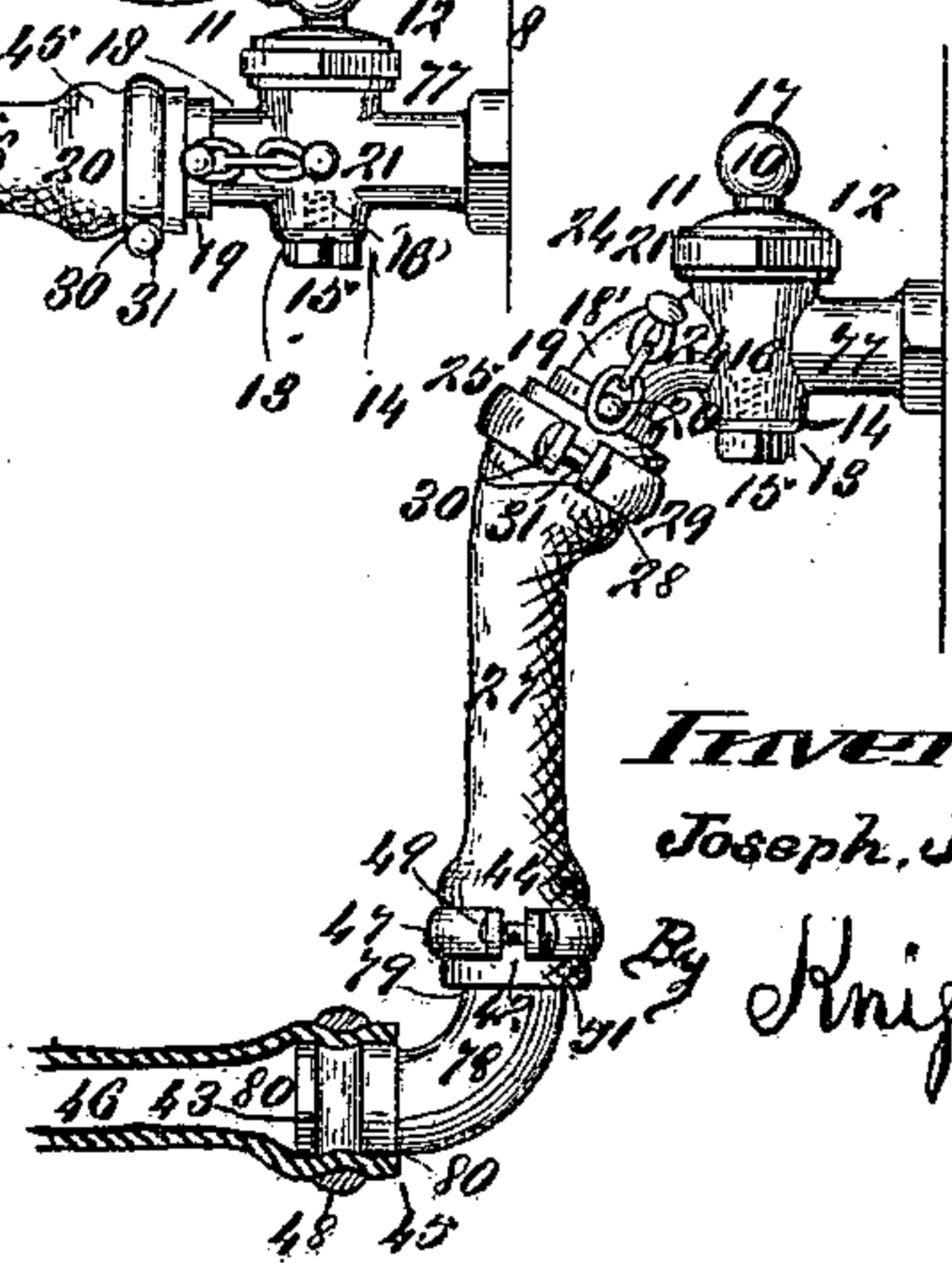


Fig. VIII.



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UNITED STATES PATENT OFFICE.

JOSEPH J. HENTZE, OF ST. LOUIS, MISSOURI.

COUPLING FOR BATHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 514,321, dated February 6, 1894.

Application filed May 31, 1893. Serial No. 476,076. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH J. HENTZE, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Couplings for Bathing Apparatuses, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 This invention relates to a bathing apparatus that includes douche, shower, Turkish, clyster, friction, medicated, warm and iced baths, &c.; for household, as well as public use and for hospital service; and the invention consists in features of novelty hereinafter fully described and pointed out in the claims.

Figure I is an end view and shows the elevated tank, the hydrant faucet, the hose that connects from said hydrant faucet to said tank, and the link lock connection of said hose to said faucet; it also shows the discharge hose connected to tank with one of the diverse forms of application nozzles secured thereto. Fig. II is an enlarged, vertical section and shows the means of attaching the discharge hose to the outlet tube of the tank. Fig. III is an enlarged, vertical section, taken on line III—III, Fig. I, and shows the collar clamp attachment of the discharge hose to the nozzle coupler, and the screw threaded attachment of the smooth bore anti-friction nozzle to said coupler. Fig. IV is an enlarged, side view of the clyster nozzle, with part broken away, showing a vertical section of the safety bulb at its application end. Fig. V is an enlarged, side view of the fan shaped douche nozzle, that has a single line of perforations, circling the curve line of its profile face, for use as a spinal sanitary douche, or other like appliances, such as for the limbs where a single line of application is required, one side of the fan of said nozzle being removed to show a section view of said single line fan discharge. Fig. VI is an enlarged inverted, vertical section, taken on line VI—VI, Fig. IX, and shows the perforate rose nozzle, for the application of shower baths. Fig. VII is an enlarged, horizontal section, taken on line VII—VII, Fig. I, and shows the hydrant faucet, the saddle coupler that fits tightly around the nozzle of said faucet, hav-

ing a projecting holder key, the coupler chain that locks said key, with a detail of the discharge hose, locked by the clamp collar in the concave seat of said saddle coupler. Fig. VIII is a side view, and shows a hydrant faucet with a pendent nozzle, the chain locked coupler attachment of the pendent hose to said pendent nozzle, and the metal elbow coupler joint that is secured by clamp rings to said pendent vertical hose, and to the horizontal hose. Fig. IX is a side view and shows the direct application of the shower bath hose to the hydrant faucet, so as to utilize the hydrant pressure on the shower bath from the rose.

Referring to the drawings:—6 represents the elevated tank, which rests and is secured on the brackets 7 that are attached to the wall 8 of the building or room.

9 is the overflow pipe, that carries off the overflow waste from the top of said tank, when by inadvertence the hydrant supply is allowed to flow too long.

10 represents the hydrant faucet, 11 is the inverted cone plug of said faucet, which plug sits in its inverted cone seat 12 in the faucet, and is there secured by the foot washer 13 that rests against the flat base 14 of said faucet, and by the set screw 15, that is secured in its screw socket 16 therein.

17 is the handle that turns said plug to open or close its valves 75, and bring them thus into respective coincidence or vice versa with the valves 76 in the tube stem 77 of the faucet, and 18 is the nozzle to said faucet, which may be straight, as shown in Figs. I, VII and IX, or curved downward as a pendent nozzle 18', as shown in Fig. VIII. I have shown a lever handle to said faucet, but I do not confine myself to that form of handle, for a cross T or circular disk, or any other suitable form of handle may be used.

19 represents a saddle collar that fits tightly on the nozzle of the faucet, whether said nozzle is straight or curved pendent, the curve in the latter case being mostly or entirely above the saddle seat thereon.

20 represents a lock pin that is integral with and projects from said saddle collar.

21 represents a headed holder screw, which is secured in its screw socket seat 22, in the side of said faucet, and projects therefrom,

and 23 is a short lock chain, the terminal set link 24 of which is secured on the stem of said screw and there held by its head. The locker link 25 at the other terminal of said lock chain 23 loops over and holds said lock pin 20, so as to securely hold the saddle collar 19, on the nozzle 18 of the faucet, and 26 is a concave retention seat in said saddle collar 19.

27 represents the elastic supply hose, the initial end 28 of which is seated on and elastically embraces the said saddle collar 19, and is there secured in its concave retention seat by the clamp-ring 29, the perforate lug ends 30 of which ring are drawn and secured to their clamp hold by the set-screw 31, that passes through the perforation in one of said lugs and is screw seated in the screw-threaded perforation in the other lug. It will thus be seen that said elastic (preferably rubber) hose is permanently secured in its concave retention seat in said saddle collar, and is attachable with the saddle collar to the nozzle of the hydrant, to which it is secured by said lock-chain 23. The elastic hose contracts in front of said saddle collar and presses tightly against the periphery of the discharge end of the nozzle, and thus reinforces the water tight joint connection of the same.

32 and 33 respectively represent the inlet and outlet ports of the elevated tank, which with their screw attached respective nozzles 34 and 35, are of like construction, as shown in section in Fig. II.

36 and 37 are the respective internally screw-threaded flanges that surround and circumferentially project from said ports. The said respective nozzles 34 and 35, have attachment screws 38 and 39 that engage in their said respective screw seats 36 and 37, and their respective peripheral flanges 40 and 41, (when said attachment nozzles are screwed home,) are tight seated on the said projecting circumferential lugs that project from the said inlet and outlet ports of said tank, and 42 and 43 are the respective concave retention seats in said respective nozzles on which respectively the final end 44 of the supply hose 27, and the initial end 45 of the discharge hose 46 are respectively seated, and are alike held in their said concave retention seats, by their respective clamp rings 47 and 48, the perforate lug-ends 49 and 50 of which rings are drawn and secured to their clamp hold by the respective set screws 51 and 52, that pass through the perforation (in each case) in one of said lugs, and are alike screw seated in the screw threaded perforation in the other lug. It will thus be seen that with said elastic supply and discharge hose they are alike secured on similar nozzles at their respective supply and discharge ports.

53 represents an intermediate nozzle attacher, which has a concave recessed saddle seat end 54, on which is mounted and secured the final end 55 of the discharge hose 46.

56 represents a clamp ring that is secured

around adjacent to the final end of said discharge hose, and draws and secures it into its concave retention seat 54 on said nozzle attacher. The perforate lug ends 57 of said clamp-ring are drawn to effect said tight embrace of the hose, by the set-screw 58, that passes through one of its said perforate lugs and is secured in its other screw-threaded, perforate lug, thereby effecting a water tight and secure hold of said hose. The end of said hose abuts against the peripheral extension flange 59 of said nozzle attacher, and 60 represents a peripheral screw on the forward end of said attacher.

61 represents a cone shaped nozzle, which has a smooth gradually diminishing discharge bore 62, that concentrates and augments the force of the discharge at its small mouth 63. The enlarged flange 64 at its attachment end, has an internal screw 65, that when attached is screw seated on the peripheral screw 60 of said intermediate attacher nozzle 53.

66 represents the clyster nozzle for injections, which has a like enlarged attachment flange 64, and internal attachment screw 65, to that shown and described in said nozzle 61, and therefore alike numbered. The mouth 67 of the tube bore 68 of said clyster is reduced to a finer aperture than in the nozzle 61, and there is a bulb expansion lip 69 of said clyster nozzle around said mouth for protective purposes.

70 represents the perforate rose nozzle for shower bath applications, which nozzle also has a like enlarged attachment flange 64, and internal screw 65 therein, as alike numbered in the other nozzles. The tube bore 71 of said rose nozzle, instead of concentrating toward its mouth, as do said other nozzles, on the contrary it expands in a peripheral curve to make the expansive circumferential, flaring shoulder 72, that sustains all around the periphery of the convex face 73 of the rose, through the numerous divergent perforations 74 in which the spray or shower of water is forced with great power under hydrant pressure.

81 represents the fan nozzle, that has a profile fan shaped discharge face 82, provided with a single line of perforations 83, leading to which is its supply tube 84. The said nozzle, like the others described, has also a like enlarged attachment flange 64, and internal screw therein 65. This fan nozzle is especially designed for a sanitary spine douche, where the application is required to be along the single line of the spine. It may also be advantageously used on other single contracted lines as in applications to the limbs.

In Fig. IX is shown the attachment of the hose 46, with its rose nozzle, direct to the hydrant faucet, instead of to the elevated tank, so as to utilize the hydrant power, in the forcible propulsion of the discharge which is frequently of great importance in a douche bath. When said hose is thus attached direct to said hydrant faucet, the aforesaid saddle col-

lar 19, with its concave retention seat 26 and lock pin 20, with the lock chain 23, and holder screw 21, are also used with also the clamp ring 29, as shown in Fig. VII, which is also preferably used in the direct attachment of either of the hose to the hydrant, thereby to lock said attachment against the projectile effect of the hydrant force. It will also be seen that as said discharge nozzle hose 46 is attached direct to the hydrant faucet, as shown in Fig. IX, either of the other nozzles can as readily be attached as the rose nozzle shown, and are intended to be so attached to said hose, when the extreme hydrant force is required to be exerted on the discharge through said nozzles.

In Fig. VIII is shown a further adjusting attachment of the hose in my apparatus, that is especially useful where the faucet has a pendent nearly vertical discharge nozzle, as shown in said figure in contra-distinction to the straight, horizontal nozzle shown in Figs. I, VII and IX. Now in such case, with said pendent nozzle faucet attachment, the supply hose 27, in consequence hangs pendent, and although it might be bent around by hand, as are the supply and discharge hose in connection with the elevated tank, yet when connection of the hose that carries the faucet, instead of going *via* said tank is made direct with the hydrant faucet, as shown in Figs. VI and VIII, so as to utilize the hydrant force, it is found that there is less impediment to said force if the transposition of the vertical line of the pendent hose 27, as shown in Fig. VIII to that of the (in said figure) horizontal hose 46, is made by the metallic elbow joint pipe 78, which does not as in some degree does the elastic hose, buckle in turning. The respective initial and discharge ends 79 and 80, of said elbow, have like the respective inlet and outlet nozzles of the tank, (to which, when said tank is used, said hose 27 and 46 are connected,) the said elbow joint pipe has like respective retention concave seats, alike numbered 42 and 43, in which the attachment ends of said hose are secured by the respective clamp rings also alike numbered 47 and 48; the perforate and screw perforate lug ends 49 and 50, are drawn together by the set-screws 51 and 52, to effect a tight pressure joint of the con-joint ends of said hose 27 and 46, to their above named respective retention concave seats. The said perforate lugs 50 and set screw 52, not being shown in Fig. VIII on account of the part in which they would appear being cut off to show a section view of said attachment joint, but the construction is exactly coincident with that

of the screw draw attachment shown in the same figure of the clamp ring of the initial joint of said elbow tube, and it is also shown in Fig. I, so that it is abundantly shown.

In Fig. IX the hose 46 is shown coiled around more than it is often required to be in use, simply to accommodate itself to the disposable space in the drawings.

When it is required to use a warm bath, hose connection, as shown for hydrant water, may be made between the usual hot water pipes, heated by the usual basement furnace, and with the elevated tank, the said hot water being reduced in temperature if required by a contingent of hydrant water.

When, as is frequently the case with sanitary douche applications, it is required that the water should be chilled with ice, the said water is led around *via* the tank, in which tank ice is deposited, so that the water for the douche is thereby reduced to any required temperature.

I claim as my invention—

1. In a bathing apparatus, the combination of the faucet 10, the saddle collar 19 seated on said faucet, the said collar provided with the concave retention seat 26, the hose mounted on said seat, and the clamp ring 29, that retains said hose in its seat; substantially as described.

2. In a bathing apparatus, the combination of the faucet 10, the saddle collar 19 seated on said faucet and provided with the concave retention seat 26, the lock-pin 20 that projects from said collar, the holder screw 21 secured in said faucet, the lock chain 23 mounted on said holder screw and engaging with said lock pin, the hose mounted on said saddle collar, around said retention seat, the clamp ring 29, having the perforate lug and screw-ends 30, and the set-screw 31 that engages in said lugs, to contract said clamp ring; substantially as described.

3. In a bathing apparatus, the combination of the faucet 10; the tank 6 having supply hose 26 and discharge hose 46; and the means for coupling the supply hose 26 to the faucet, consisting of the collar 19 fitting on the faucet and having formed upon it a seat 26 over which the hose fits, a clamping ring 29 surrounding and forcing the hose into the seat 26, the chain 23 attached to the faucet, and the pin 20, on the collar, engaged by the chain; all substantially as and for the purposes set forth.

JOSEPH J. HENTZE.

In presence of—

BENJN. A. KNIGHT,
E. S. KNIGHT.