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COLON THERAPY APPARATUS

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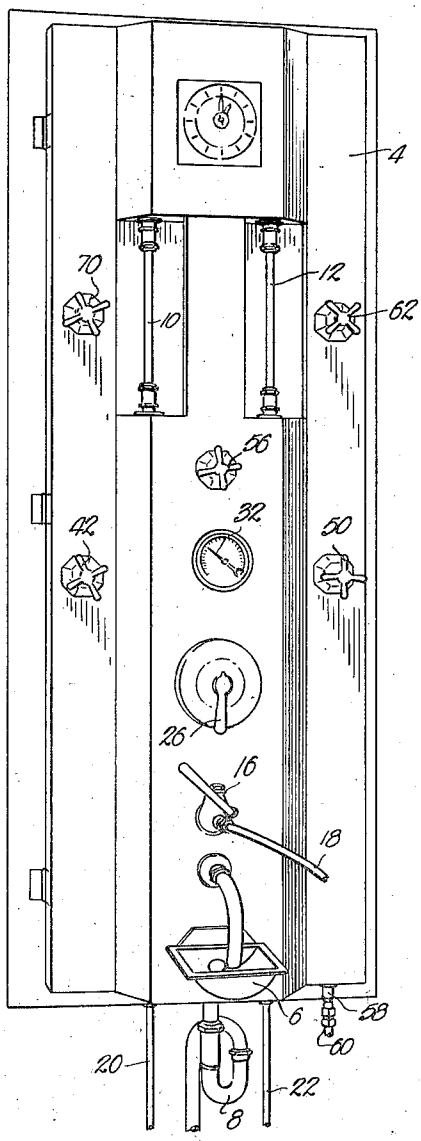


Fig. 1.

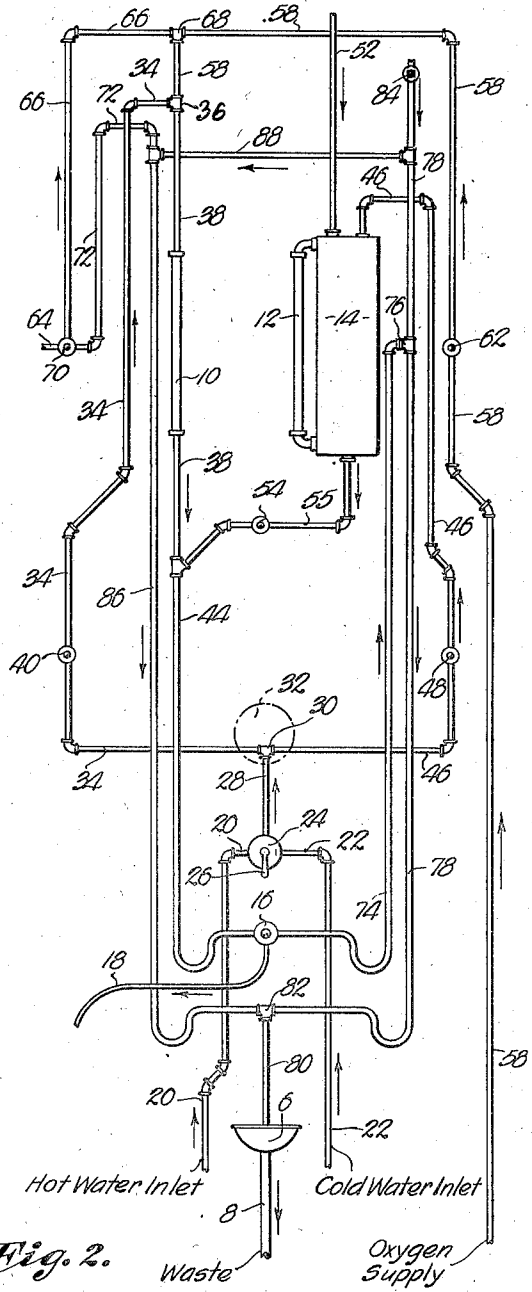


Fig. 2.

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COLON THERAPY APPARATUS

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1 Claim. (Cl. 128—227)

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This invention relates to colon therapy apparatus and particularly means for irrigating the colon of the human body, and simultaneously applying to the lining thereof, for absorption by the blood stream, a predetermined amount of oxygen, the supply whereof is controllable through the instrumentality of the apparatus embodying the invention.

Another important aim of this invention is the provision of colonic irrigating means having as a major portion thereof, a system of pipes for introducing to the colon, under a desired pressure head, a quantity of liquid wherein may be entrained a volume of oxygen, to the end that healing is assisted and the killing of bacteria is promoted.

A further object of this invention is to provide apparatus of the aforementioned character, having means for injecting fluids and associated elements for relieving pressure when the capacity of the person being treated reaches its maximum.

Other objects of the invention include self-contained parts for evacuating certain sections of the overflow tubing in the apparatus, means for maintaining the desired pressure head, and manually controllable units for selectively introducing to the liquid being injected, an amount of air and/or oxygen.

Other objects of the invention will appear during the course of the following specification, referring to the accompanying drawing wherein:

Fig. 1 is a perspective view of a colon therapy apparatus made in accordance with the present invention; and

Fig. 2 is a diagrammatical illustration of the system employed in the apparatus.

In commercial practice the instrument is usually hung on the surface of a vertical wall and housed within a case 4 having a basin 6 connected to a conventional sewer through waste pipe 8.

Case 4 is formed to expose to view sight tube 10 and level indicating tube 12, joined to tank 14 in which is stored such medication as the operator desires to introduce to the fluid being injected.

A quick acting gate valve 16 controls the passage of fluid to the patient and a flexible tube 18 is in connection with gate valve 16 at its one end, while the other end thereof, not here shown, may be joined to suitable injection nozzles.

The apparatus is joined to a source of hot water through the medium of a conduit 20 and to a source of cold water by a conduit 22. These

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conduits join a mixing valve 24, the handle 26 whereof is exposed as shown in Fig. 1. Conduit 28 leads from mixing valve 24 to a T 30 where the temperature of the incoming liquid is taken by a thermometer 32, the indicator and face whereof is exposed on the outside of case 4.

During normal operation of the apparatus, the liquid consisting of intermixed hot and cold water to establish a proper temperature, passes from T 30 through a conduit 34 to a T 36 in conduit 38. A valve 40 interposed in conduit 34 has the manually manipulatable portion 42 thereof exteriorly of case 4. Conduit 44 extends from the lower end of conduit 38 to gate valve 16.

For purpose of supplying water of desired temperature to tank 14, a conduit 46 is attached to T 30 and joined to the top of tank 14. This conduit 46 is equipped with a valve 48, the handle 50 whereof is projected beyond the outer wall of case 4 for convenient access. A filler tube 52 extends to tank 14 from a point at the top of case 4 and it is through this tube that any medication that is to be introduced to the stream of liquid entering the patient, is placed in tank 14. Obviously the level of the liquid in tank 14 may be observed by the exposed, transparent level tube 12.

Conduits 38 and 44 from sight tube 10 to gate valve 16 usually have a column of water therein when the patient is being treated. This column of water may be medicated by opening valve 54, the handle 56 whereof is exposed on case 4. Valve 54 controls the passage of the medication through conduit 55.

The water destined for the patient may be charged with oxygen which is introduced into the water as it enters conduit 38. Conduit 58 having a suitable connection 60 directly to a bottle of oxygen, not here shown, extends to T 36 and has a control valve 62 therein. Tube 64 connects a source of compressed air, not here shown, with conduit 66, one end of which is joined to conduit 58 by coupling 68. Two-way valve 70 controls the passage of air from tube 64 to conduit 66 and likewise controls the passage of air from tube 64 to pipe 72, the function whereof will later be set forth.

An unique overflow system is provided in the colon therapy apparatus made as illustrated, and the same insures a positive relief of pressure when capacity of the patient or a desired pressure is reached. Pipe 74 extends vertically for a considerable distance to a connection 76 to pipe 78, extending to waste 8 by way of basin 6, pipe 80 and T 82. Pipe 78 continues upwardly from T 76 to its open end near the top of case 4 and is

provided with a valve 84. Another vertical pipe 86 has its lower end joined to T 82 and its upper end connected to pipe 88 which serves as means for placing into communication pipes 78 and 86. The upper end of pipe 86 is joined to pipe 72.

When operating the apparatus it is desired to have a continuous flow of liquid through the colon for a period of from thirty-five minutes and during this time, air is introduced to the water from tube 64. Under such conditions valve 70 is set to close pipe 72 and allow the flow of air from tube 64 to conduit 66 and thence to conduit 38 where the water from conduit 34 is charged with said air. The charged air passes through conduit 44 to tube 18 and thence to the patient. A column of water having a level, observable through sight tube 10, may first be collected in conduit 44 before opening gate valve 16, if such a pressure as will be exerted by the said column of water is desired. Any medicant may be introduced into the water from tank 14 through conduit 55 by merely opening valve 54. A column of water will appear in pipe 74 during the operation of the apparatus and in the event back pressure in tube 18 becomes great enough to overcome the atmospheric pressure on the top of the column of water in pipe 74, the level of that column will arise and escape through pipe 78 to waste 6 by way of pipe 80. Valve 84, of course, is opened. If back pressure becomes so great as to overcome the ability of pipe 78 to carry off the liquid, it will rise in pipe 78 and pass through pipe 88 to pipe 86 where it will escape to waste through pipe 80. Valve 70 is in the position where pipe 72 is closed and the action of gravity on the liquid at the connection of pipe 88 with pipe 86, will insure that pipe 72 will not become filled. If this pipe should become filled and the back pressure so great as to overcome the ability of pipes 78 and 86 to carry off the waste in the system, then an emergency overflow will come into play through the upper end of pipe 78 which is open to the atmosphere.

After air and water has been fed to the patient for a period of time determined by the particular case being treated, valve 70 is closed, valve 62 is opened, and oxygen is introduced through conduit 58 by way of T 68, conduit 58 and T 36 to the incoming liquid from conduit 34. Pure

oxygen will be carried to the patient through conduits 38 and 44 and tube 18. A treatment of from ten to fifteeen minutes with oxygen will cleanse the colonic walls and permit the absorption of the oxygen by the blood stream. The introduction of oxygen to the colon is also for the purpose of killing any bacteria.

It is obvious from the foregoing that proper manipulation of the exposed valves of the system as they appear in Fig. 1 of the drawing, will permit a proper and safe treatment; the pressure exerted will not be detrimental to the patient; and the several ways of relieving excessive pressure definitely insures comfort and safety. Apparatus of a specific character different from that illustrated may be made to embody the invention, and therefore, it is desired to be limited only by the scope of the appended claim.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

In colonic irrigating apparatus of the character described, a vertical closely looped conduit having connection with a source of liquid; means for introducing oxygen under pressure to the liquid as it enters said vertical conduit; means for introducing compressed air to said liquid as it enters said vertical conduit; apparatus at the lowermost end of the conduit for connecting the same to an injection medium; and manually operable means for selectively introducing controlled amounts of the air and said oxygen into the vertical conduit for admixing with the liquid.

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