NEW ROTARY PUMP.

Our engraving illustrates an improvement in pumps of a rather novel character. No piston or valves of any kind are employed. The invention consists of a coil of India rubber pipes, A, placed within a metallic ring, B. The suction necessary to raise the water is produced by compressing the rubber by means of the roller, C, against the ring, B. The roller is attached to bearings, D, in the arma, F, on which E, the rotary motion being given by the crank.

As the roller revolves in the direction of the arrow the screw pushes the rubber tube, forces the water in front, A, and thus produces a vacuum behind, which the water fills as fast as the roller advances. Cams G press the water against the roller, C, and up against the rubber tube, B; the set screws, H, serve to adjust the degree of pressure given to roller, C. When the pump is not in use the handle is turned backwards from the direction of the screw, and at once presents the lower side of the cam to the set screws, H, and the pressure of the roller, C, is thus removed from the elastic tube.

This is both a suction and force pump. It is extremely simple in construction, said to be very durable, and to possess, among others, the following advantages—It is not liable to get out of repair, and in case it should, it can be repaired by any one who can use a screw-driver. It has no valves, and can be used in pumping any kind of liquid substance, and can be put up easily without the aid of a plumber; it discharges the water after use, so that it will not freeze in winter; it can be put in the house if the well is out of doors, while the chain pump must be put directly over the well; it is a fire-engine for every house, although only costing about the same as an ordinary suction pump; being rotary, it can be easily driven by power. It is not affected by steam or any kind of acids, and will stand any climate. Messrs. George Demlin and D. S. Menanacs are the inventors of the described improvements in this apparatus, for which application has been made for a patent. A part of the invention was patented to Demlin & Bradley, April 17th, 1855. Foreign patents are in process of being secured. For further information apply to Asa Farr, Jr. No. 55 Cliff st., New York City.