SANITARY FITTINGS.

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(MEMBER.)

ABSTRACT.

THE following general laws should always be conformed to:—

1. The material used should be impervious, and, wherever possible, pipes should be left uncovered.

2. The general construction should be such that the accumulation of dirt can everywhere be easily prevented.

3. The supply arrangements (taps, etc.) should be such as to do their work as quickly as possible.

4. Bath and lavatory discharge and overflow pipes should be large enough to carry off the water with all supply pipes running full bore. Overflow pipes should be accessible, so that they can be taken out for cleaning.

Let me now take various appliances in detail.

Baths.—These, for public or for the best private work, should be of enamelled fire clay; but for general use, the material most to be recommended is cast iron porcelain-enamelled, *i.e.*, with the inside coated with white porcelain enamel which is practically incorporated with the iron by fusion in a muffle furnace.

Bath-rooms should be well lighted and ventilated; and they should also be properly heated by means either of radiators or of hot-water towel drying rails.

Closets.—Every closet should have floor and walls alike of impervious material. Closet traps should be separately ventilated.

Storage Tanks and Flushing Apparatus.—For perfect efficiency all houses ought to have storage tanks to furnish a supply for every purpose except drinking—drinking-water should always be taken direct from the main.

Closets may be flushed in three different ways:—(1) By what is known as a regulating supply valve, fixed over, or at the side of the water-closet, and fed from the storage tank referred to. Regulating valves of good

construction are noiseless, and with a good and ample water-supply very suitable and convenient. (2) From a cistern four to six feet above the closet. (3) From a cistern immediately above and behind the closet.

Cisterns placed immediately above and behind the pan, though at first looked on with considerable disfavour, have proved very successful. A regulating stop-tap renders them almost noiseless, the larger inlet more than compensates for the lack of height pressure, and the greater quantity of water washes the basin, clears the trap, and flushes the drain in a perfectly satisfactory manner.

Sinks.—Sinks are, of all our sanitary appliances, those that probably receive least care and attention.

These appliances should be made of strong fireclay, white glazed all over, with round edges, and with no woodwork settings or casings of any description whatever. A loose teak-wood grating may be placed in the bottom to prevent the breaking of crockery, or damage to the enamel from saucepans, etc.; but even here a wire cage is perhaps better. The large drain boards at the sides should be covered with tinned or nicked copper. Sink and boards should be supported on cantilever brackets. The trap, discharging through the wall so as to leave the floor quite clear, should be of glass-enamelled cast iron, as lead is much more liable to injury from external violence. The waste and overflow pipes should be large. All angles, crevices, and dark corners should be scrupulously avoided.