

TEMPERATURE REGULATION.

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The automatic control of artificial temperature is a comparatively new art. With the crude methods of heating employed by our ancestors nothing of this sort was possible and even with the advent of more modern steam systems the operators were for years forced to be content with such regulation of temperature as could be obtained by manually operating heater drafts, ventilators, etc. As heating appliances approach perfection, however, and the knowledge of hygiene becomes more widely disseminated the question of temperature in our living and working rooms has gradually assumed the importance it deserves and to meet the demands for means of automatically controlling these temperatures, various appliances have from time to time been placed upon the market. It is a matter of anxious interest in this connection, as showing the difficulty of the problem, that out of the many appliances introduced for this purpose very few have proved practicable and out of the many hundreds of patents that have been issued for automatic temperature regulation only a few are required to cover the appliances that are in successful operation to-day.

A temperature regulator is an automatic device which will open or close as required to produce a uniform temperature, the values which control the supply of heat to the various rooms. Although these regulators are often constructed so as to operate the dampers of the heater they differ from damper regulators for steam boilers by the fact that the latter are unaffected by the temperature of the surrounding air, although acting to maintain a uniform pressure and temperature within the boiler, while the former are put in operation by changes of temperature in the rooms. Heated from a hygienic point of view the close regulation of temperature in a building is important and from an economic point of view it is even more important. When the air volumes used are large such regulation cannot be entrusted to people who, absorbed in their work, fail to note a change of temperature until it becomes sufficiently extreme to attract notice. A radical and speedy change being then called for, windows and doors are resorted to until rooms become chilly, the inevitable results of such methods of regulating the temperature are wasteful escape of heat.

The heating surface for the warming of a building must be made sufficient for the demands of the severest weather at other times only fractional parts of the heat producible from it are needed. This may be obtained and works very satisfactorily by placing a number of thermostats on the outside