of the building. The number to be determined by the size of the building. Those thermostats are set to operate at a low temperature and to control one or more radiators in the room the other radiators are controlled directly by the thermostat, placed in the room, and indirectly the inside thermostat ontrols all the heating surface when the temperature falls below the temperature that the outside instrument is set at. Such control is as essential to the evenness of temperatures furnished by a heating system and to the economy of its working as is a governor to the steadiness, and economy of the working of an engine. That reliable results are obtainable with the best forms of thermostats properly installed, cared for and used has been abundantly demonstrated. At the present time the cost of such apparatus for buildings of ten or more rooms should be estimated at about 6 per cent. of the cost of installing the entire heating and ventilating system. Aside from the undoubted value of a reliable system for control of temperature in protecting health, its service in economizing fuel is important.

A simple calculation will show the value of a method to control the heat supply. The average outside winter temperature during which the heating appliances is in use is about 40° Fahrenheit, and assuming 55° as a comfortable inside temperature the difference of 15° has to be supplied by the consumption of fuel and if the heat of the room by being made to run up to 70° that is 15° more, then the quantity of fuel used will be doubled again. Suppose that 70° be taken as the temperature needed for comfort and that this be run up unnecessarily to 73°, one tenth more fuel will be consumed in adding this undesired 3° which can readily be seen is a great extravagance. Yet many of our rooms, especially in large office buildings are kept at a much higher temperature with the result, especially in humid conditions of the atmosphere, that the occupants of the room become uncomfortable and the windows are thrown open to admit of the escape of the excess heat which is lost so that not only the unnecessary 3° is wasted, but much more of the normal heat of the room besides and the occupant of the room is unwittingly attempting the Herculean task of heating the town. Experience has shown that these calculations are verified in practice and in many cases the waste is much in excess of any of our supposed instances. I have in mind a test being made in New York city in one of its large office buildings, where a saving of 16 per cent. of the fuel consumed for heating has been affected by the installation of temperature control.

The temperature regulator in general consists of three parts as follows: first, a thermostat which is so constructed