

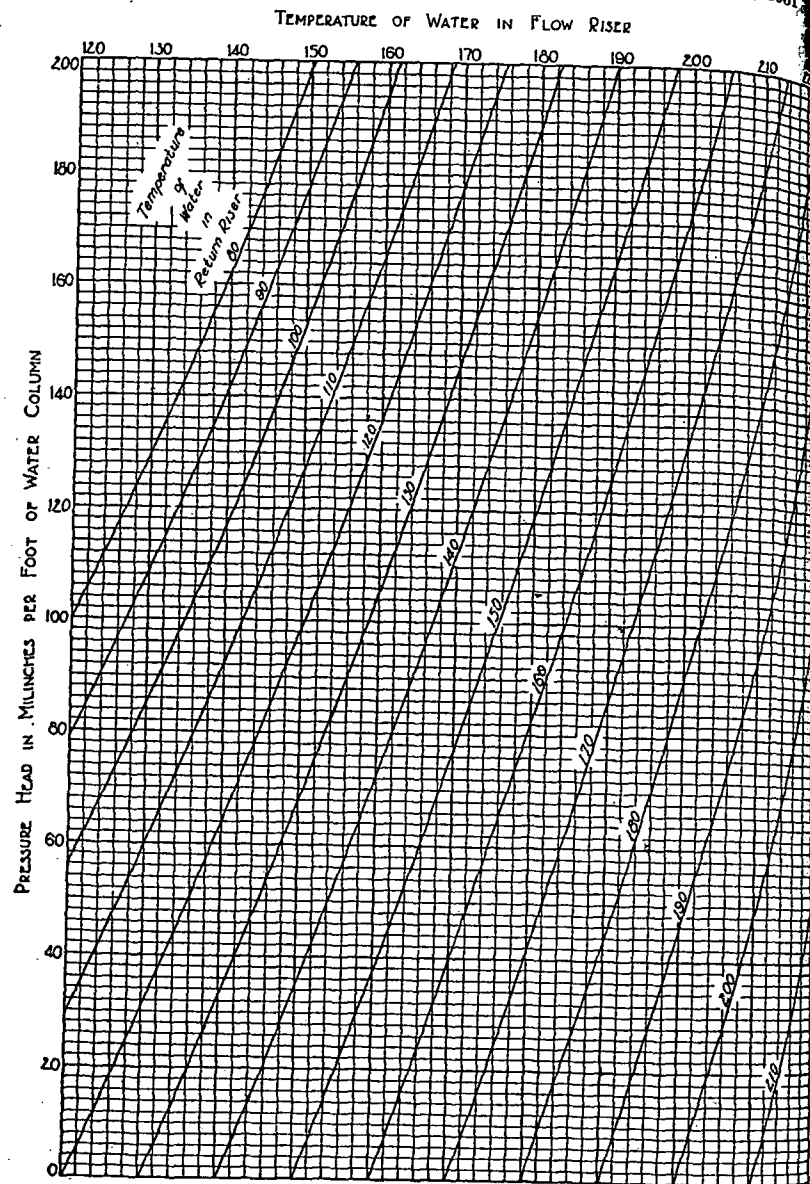


FIG. 5. PRESSURE HEADS FOR VARIOUS TEMPERATURE DIFFERENCES

The pressure head for the main system is produced by the difference in weight of the 205 deg. water in the flow risers and the 180 deg. water in the return risers, the two risers being 3 ft. 6 in. high.

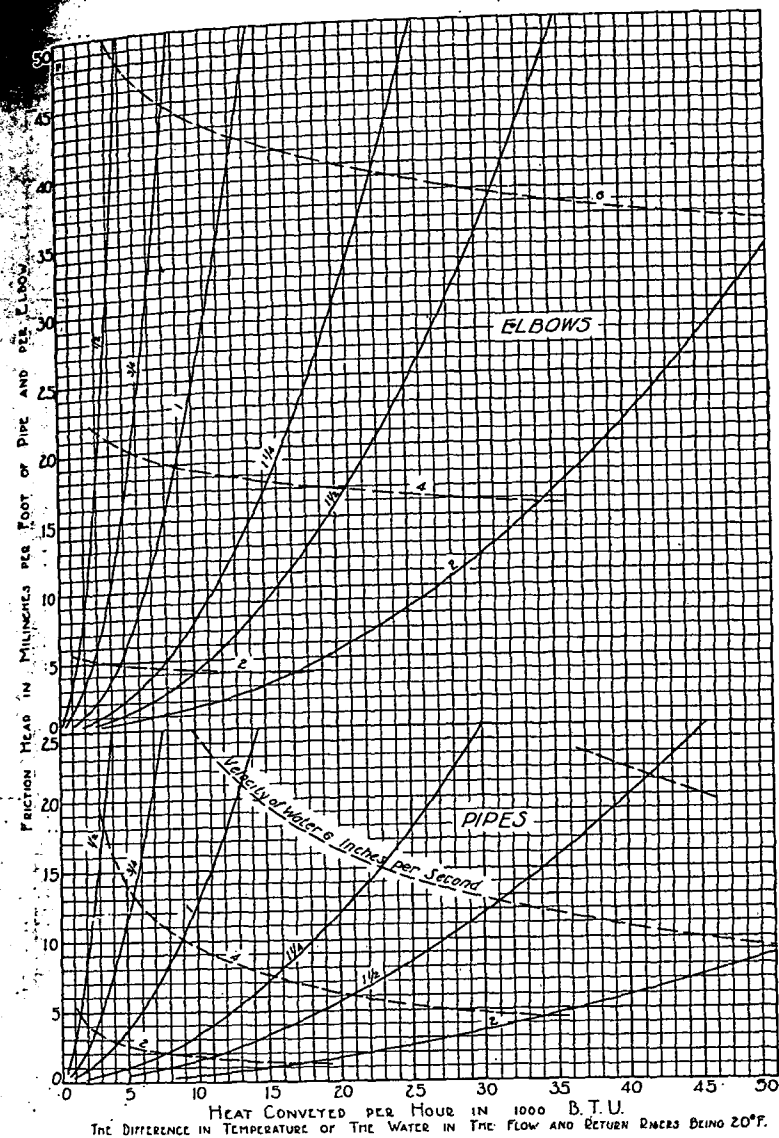


FIG. 6. FRICTION HEADS, IN SMALL PIPES AND ELBOWS, FOR A 20 DEG. TEMPERATURE DIFFERENCE OF THE WATER IN THE FLOW AND RETURN LINES

The weight of 180 deg. water is 60.58, and that of 205 deg. water is 60.00 lb. per cubic foot. The difference in the weights of the two columns of water is $3\frac{1}{2} \times 0.58$, or 2.03 lb.