

FIG. 3—STANDARD TYPES OF RIVETED JOINTS

They are seldom used in longitudinal seams unless the pressure is very light and the pipe diameter small. Under high pressures there is a tendency for the joint to buckle, as shown in Fig. 6. It is apparent that such a tendency is very undesirable as far as watertightness is concerned. Single riveted lap joints are used almost exclusively in spiral riveted pipe, in which case they are satisfactory.

Double riveted lap joints are used very largely in girth seams, especially in large diameter pipes. Their use in longitudinal seams is quite satisfactory for pipes up to 8 ft. in diameter where they fulfill the requirements of efficiency

and rigidity of section. When properly caulked, they can be made entirely watertight. In girth seams, they are usually designed with the same diameter of rivet as is used in the adjacent longitudinal seams, for the sake of simplicity.

Triple riveted lap joints are far more satisfactory in longitudinal seams than either single or double riveted lap joints, because of their greater rigidity and consequent watertightness. For pipe diameters greater than 4 ft., they are uneconomical except where the required joint efficiency is not more than 75%.

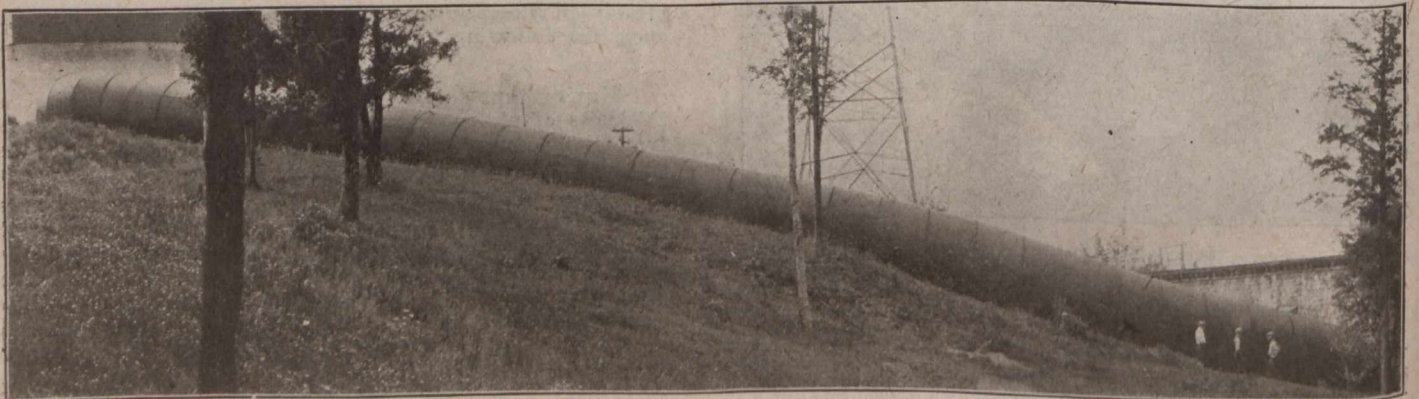


FIG. 4—PENSTOCK, 10-FT. DIAMETER, WITH SINGLE-RIVETED LAP JOINTS (AT HANNAWA FALLS, N.Y.)