

Ballast grades will be set and the top of the rails must conform to the level called for by them. **Ballast Grades** Particular care is demanded in packing the ties; the tamping must be thorough, the tie thoroughly supported throughout, the space between the ties packed full and the shoulder at the end of the tie as called for in specifications, and cross sections of same. The slopes to be neatly and exactly laid to that called for. Particular care will be taken to set the ballast grade stakes on curves to give the proper super-elevation called for, the inner rail being kept to the true grade. On spiral curves the super-elevation will be gradual and proportionate to that on the circular curve, the tangents being level.

SWITCHES.

77. Special attention should be given to the laying out of switches, turnouts and frogs. The frogs, of angles of $6^{\circ} 22'$ and those of 9° known as number 9 and number $6\frac{1}{2}$, only will be used.

All turnout curves are considered as beginning at the fixed end of the slide rail, and all Engineers must make their calculations for determining the position of head-block and point of frog on this basis. Sidings at different distances from the main track will be located, in the absence of special instructions, according to the following table, the turnouts being from straight lines.