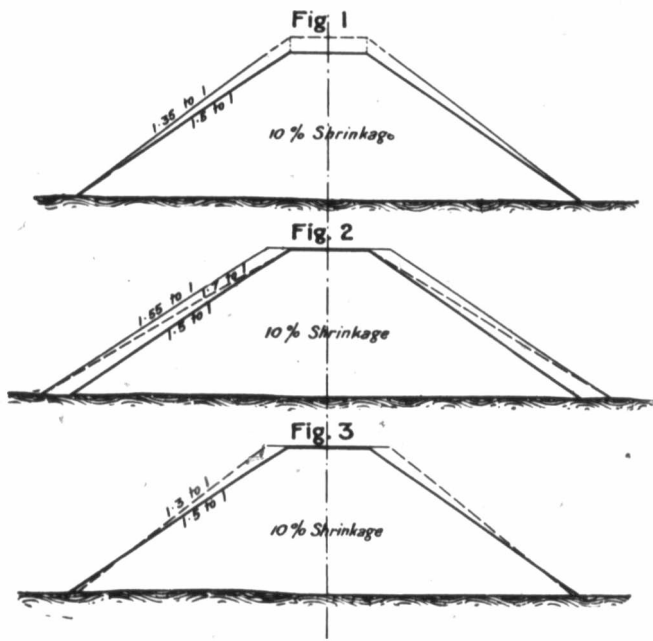


tention between them on account of the magnitude of the quantities involved being overlooked.

On side-hill ground, and when cuts and fills alternate rapidly, and are of considerable extent, the theoretical shrinkage, if applied on top, would lead to anomalous conditions. When track laying has closely followed construction, cases are not unknown where the top shrinkage applied has had to be removed, or where, as illustrated in Fig. 4, the shrinkage, if not immediately taken up by settlement, might exceed the permissible grade.



From these considerations it would appear reasonable to omit raising the fill above profile grade and applying side shrinkage only to make a full shoulder so as to carry the material required to make up to grade as bank settles.

Fig. 1 shows the usual method of applying shrinkage, whilst Figs. 2 and 3 show modifications of this method according as to whether or not excess quantities are permissible, or whether or not it is thought desirable to steepen the side slopes.

Setting the slope stakes 1.3, 1.4, 1.6 or 1.7 to 1 instead of the