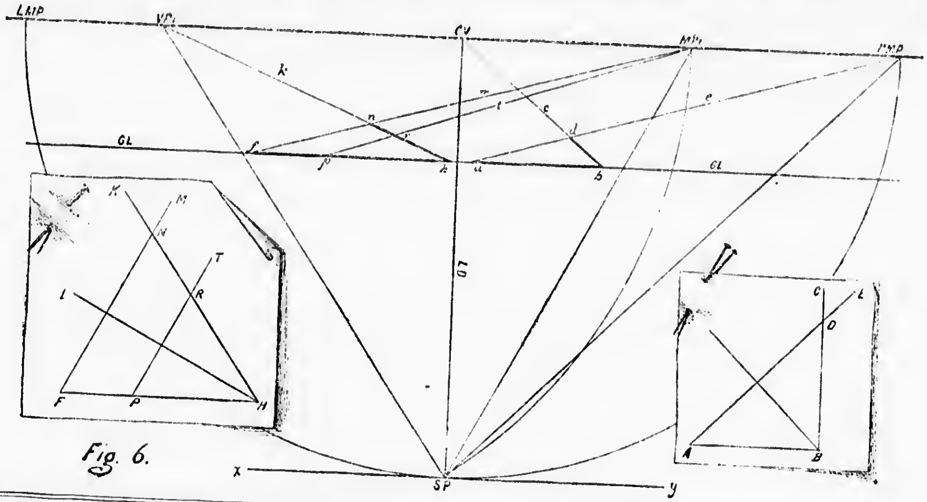

Fig. 6.

of the line $f\,M\,P_1$, making $h\,n$ the perspective length of $h\,f$ which is equal to $H\,F$.

From this illustration it may be seen that every vanishing point has its corresponding measuring point, and that the measuring point for any vanishing point can be found by drawing an arc with the vanishing point as a centre and a radius equal to its distance from the station point. The point where this arc cuts the horizontal line is the measuring point required. If the arc, drawn with $C\,V$ as a centre and $C\,V\,S\,P$ as a radius, be continued to the left, it will find on the horizontal line a point marked $L\,M\,P$ (left measuring point) which can be used as well as $R\,M\,P$* for measuring lines vanishing in $C\,V$. These two points $L\,M\,P$ and $R\,M\,P$ are as far to the right and left of $C\,V$ as the distance of $S\,P$ from the picture plane and are therefore often called

* Every vanishing point has, in reality, two measuring points at an equal distance on each side of it, but, except in the case of the centre of vision, one of them is usually so far to the right or left that it cannot conveniently be used, and the one which is nearer to the centre of vision answers every purpose. It is only on rare occasions that both measuring points will be required.

Distance Points. They are really measuring points, and are so called in this book, to avoid the confusion that might arise from calling the measuring points for $C\,V$, distance points, and calling the measuring points for other vanishing points by their proper name.

There is one point in connection with the measuring of distances on retiring lines, about which the student will need to be very careful. Suppose, instead of being required to measure a certain distance from a point on the picture plane, as h, the point from which the measurement is to be taken, already lies at some distance from the picture plane, as r, and it is required to measure from it, in the direction $h\,k$, a distance equal to $P\,F$. In such a case as this the point of contact of the point r is first found by means of a line from $M\,P_1$, the proper measurement taken on $G\,L$ from p to f and a line drawn from f to $M\,P_1$; then $r\,n$ will be the distance required. The reason for this will be manifest on comparing the lines marked by italic letters with the corresponding lines marked by capital letters.