

With the exception of the mines belonging to the General Mining Association, the workings are at present of limited extent, both in the coal and gold mines; and there is, therefore, less difficulty in having them faithfully laid down. Their position then is such as makes the primary object—a correct plan of the workings—easy of accomplishment. Whilst insisting on accuracy in this respect, I do not deem it necessary to prescribe any particular *modus operandi* so far as the survey is concerned. Assuming the survey to be correctly made, it is desirable that all plans should be so drawn that any one who has seen a mining plan may at once recognize the peculiarities of each mine. This can only be accomplished by the adoption of uniformity of detail. A similarity of scale and conventional signs is the chief means to this end. When dislocations of strata are represented on some plans by a simple faint line, on others by lines of different colors, and without regard to difference of size of throw,—perhaps wanting even that information, which should invariably be given,—and there is a similar irregular method of indicating the main roads and water levels, it will readily be imagined that some confusion must creep into any attempt to generalize from such plans the peculiar features of any particular coal field. That such a generalization is an important aid in selecting fresh openings for mining operations must, I think, be evident. Again, how important it is that any alteration in the seams or veins should be distinctly noted; they may in some districts of a mine become thicker or thinner, or be so divided by the gradual thickening of a band of stone in some part of the seam that only a portion can be worked, or in the case of a seam of moderate size both upper and lower division be too thin for profitable working. Nor is it unusual for one seam to be so separated as to form two and even three distinct seams several feet apart in another locality at no great distance from that in which the bands first appear. The difficulty of identification, it must be admitted, will be very much lessened by carefully noting and recording the change in each mine situated between the localities; and the value of a proof of this kind in sinking to other seams will, I think, be also apparent. Then, with respect to uniformity of scale: if to the discrepancies in delineating the peculiarities of the mine be added a variety of scales—some being 30 feet, some 40 feet, and others 66 feet to an inch—the difficulty of comparison, and, what is more important still, the liability to error, is very considerably increased.