

COLORING MATTER IN COAL TAR.

The tar produced in the distillation of coal for the manufacture of ordinary burning gas, at one time looked upon as mere refuse, has more recently proved of much commercial value, on account of the great variety of chemical products, especially of coloring matter, which it contains. It has been estimated that 100 pounds of the tar will furnish, on an average, 3 pounds of commercial and $1\frac{1}{2}$ pounds of pure benzole, out of which 3 pounds of commercial nitro-benzole can be obtained. These 3 pounds of nitro-benzole furnish $2\frac{1}{2}$ pounds of rosaniline; and from this, again, are obtained 3.37 pounds of the raw aniline red, out of which 1.12 pounds of pure fuchsine can be made. Since 100 pounds of coal furnish, on an average, 3 pounds of tar, it requires, therefore, about 3000 pounds to furnish 1 pound of pure fuchsine. It is estimated that all the gas-works in Europe consume annually about 160,000,000 cwt. of coal; so that the gas tar which they furnish will yield about 53,000 cwt. of fuchsine.