

tenburg and Sheffield may be selected. The latter has been contemptuously described by a professor of pure science as 'a pig-boiling and ingot-slinging establishment'. It is true that pig has been boiled into steel in the main practical laboratory at Sheffield University, and that casts of such steel up to nearly two and a half tons in weight have been made : also that the ingots have been slung out of the casting-pit by means of a four-ton electric crane. Why not ? It is also true that coke and gas crucible melting furnaces, and hardening furnaces of commercial manufacturing sizes are worked. There are also commercial mechanical testing machines for making static and dynamic tests. There is also a cupola for making in the foundry five tons of castings per day. Again, why not ? To the examination of these products at every stage of manufacture, the pure sciences of mineralogy, chemistry, physics, and microscopy are applied to the fullest possible extent. Also it may be remarked that the University of Sheffield is unique in granting Metallurgical Degrees, namely those of B.Met., M.Met., and D.Met. The Bachelor's degree requires a candidate after matriculation, in addition to seven applied science subjects, to pass also in three pure science subjects, namely chemistry, geology and mineralogy, and either physics or mathematics. In the applied analytical chemistry of steel the German analysts are distinctly inferior to trained British chemists. Nevertheless so widespread is German scientific megalomania that about three years ago a valuable consignment of high-speed cutting-steel exported from Sheffield to Germany was rejected on the ground that its micrographic analysis was unsatisfactory. The German-trained metallographist also stated : ' No doubt you are unaware that this microscopical examination of steel is