

Those who have studied the German schools invariably give them the credit for much of her great commercial success. Even in England, where the people are so conservative and so slow to change, men of the very highest prominence are asserting that more attention must be given to the teaching of those sciences which are capable of application to manufactures and industries; that technical education is extremely valuable because of its connection with the production of goods, and commercial education likewise, because of its connection with the distribution of goods.

Marked Industrial Changes.

Great and surprising commercial and industrial changes have come to pass during recent years. For example, American rails have been sent to India; Philadelphia bridge-builders have been at work in Egypt; railway coaches have been sent from Jersey City to the land of the Pharaohs; electrical tramways made in the foundries of Pittsburg now connect Cairo with the Pyramids; England is buying American locomotives, steel rails, paperware, railway coaches, and even coal; Pittsburg is no mean rival of Sheffield; Switzerland, without seaboard or coal, competes valiantly with Nottingham and Leicester. Two millions of people now earn their living in connection with electrical appliances.

In one large manufacturing plant near Mannheim 150 expert chemists are employed, and nearly all of them hold the degree of Doctor of Philosophy, obtained at some German university. This one establishment sends to the United States \$20,000 of its product every week.

The value of the German export trade in scientific instruments in 1898 was \$3,566,000. They were made in 790 establishments, employing 13,625 employees, and this was the result of subsidizing physical and chemical laboratories, observatories, and experimental institutions of all kinds. Not long ago England and France monopolized this trade.

In the matter of aniline dyes England formerly had things