

course, immediately vindicated; but the cruel fact of the charge was a hurt which—humorously as he passed it off—made the more precarious the heart trouble from which he suffered, and led quickly to the end. Dr. Wolfe was one of the few men to whom, in action and motive and principle, the word “noble” can be clearly applied. He was a lover of truth and righteousness, of his country and of humanity, and of the best in all things—worthy of the name of philosopher.

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SCIENTIFIC EVENTS

THE DEVELOPMENT OF THE DYESTUFFS INDUSTRY

THE success of the American chemists and chemical manufacturers in developing the dyestuffs industry, when the supplies of dyes from Germany were cut off, is shown in a report issued by the United States Tariff Commission, entitled “Census of Dyes and Coal-tar Chemicals, 1917.”

At the outbreak of the European war, Germany dominated the world's trade in dyes and drugs derived from coal tar. Before the war, seven American firms manufactured dyes from imported German materials. In 1917, 190 American concerns were engaged in the manufacture of dyes, drugs and other chemicals derived from coal tar, and of this number 81 firms produced coal-tar dyes from American materials which were approximately equivalent in total weight to the annual imports before the war. The total output of the 190 firms, exclusive of those engaged in the manufacture of explosives and synthetic resins, was over 54,000,000 pounds with a value of about \$69,000,000.

Large amounts of the staple dyes for which there is a great demand are now being manufactured in the United States. A few of the important dyes, such as the vat dyes derived from alizarin, anthracene and carbazol, are still not made. The needs of the wool industry are being more satisfactorily met than the needs of the cotton industry.

The report gives in detail the names of the

manufacturers of each dye or other product and the quantity and value of each product, except in cases where the number of producers is so small that the operations of individual firms would be disclosed. Seventeen hundred and thirty-three chemists or engineers were engaged in research and chemical control of this new industry, or 8.8 per cent. of the total of 19,643 employees. The report also contains an interesting account of the history and development of the industry since the outbreak of the European war.

On August 27, Dr. H. O. Forster, a member and director of the Technical Committee of British Dyes, Limited, lectured on August 27 on “The decay and renaissance of British dye making” at the British Scientific Products Exhibition, King's College. He stated that in 1878 the color industry in Germany was four times as valuable as that of England. Of £3,150,000 worth of coal tar colors produced in the world Germany produced £2,000,000, four fifths of which was exported, while Switzerland produced £350,000, and England only £450,000 worth.

That was forty years ago; confronted by these figures, people would hesitate to believe those who said that in two or three years England should be able to do all that Germany could in regard to the dye industry. It would take ten or fifteen years of unremitting labor and extraordinary patience and liberal expenditure on chemistry before we could hope to achieve the position which Germany had reached before the war in this industry. He said in conclusion:

They have three times as many chemists as we have, and their population is half as large again. We shall have to make a great effort if we are going to reach them. The industry is not an El Dorado in which one has to dig once in order to make countless thousands. It can only be achieved if money is spent on experiment. That was how Germany got on, and unless we tread the thorny path the Germans have followed, there is not the slightest hope of our catching them up in this industry. They will keep it for all time.

On the conditions of success in England Sir Henry Armstrong writes to the *London Times*:

The action taken by a large majority of the shareholders of British Dyes (Limited) at Huddersfield practically involves determining the existence of the government company as a separate business and placing the technical management in the hands of Dr. Levinstein.

Not a moment should be lost in the necessary reconstruction. Mr. Norton stated at the meeting that it was proposed "there should be three directors appointed by the shareholders of each company and three by the government, so that it would always be possible for the state to stop any abuse." The number is too large, and to give the government control of a scientific enterprise is simply to ask for disaster—the four years of failure of the company under such control should at least have taught us this much.

In the next place, it must be recognized that science must be of and at the works. All laboratory operations should at once be transferred to the factory. One of the main functions of the research department in German works—that to which more than to any other they owe their peculiar efficiency—has been that of a training school for the works. One of the chief reasons of the government company's lack of success has been the absence of sympathy between the works and those who were carrying on scientific inquiry for the company outside the works, as well as the failure to develop an efficient works staff. There has been much loose talk during the past four years with regard to cooperation between the university and industry; the real function of the university must be to serve as the training ground for industrial workers, and the sooner the professoriate learn to apply themselves wholly and solely to this form of industry the greater will be our progress as a country.

Thus far, in their attempt to nurse the dye-stuff industry into existence, government has made use of entirely unskilled agents—and, as was to be expected, the failure has been complete. If any further effort is to be made by the state, let it be a rational one. Unless and until the Board of Trade and the so-called Controller of Dyestuffs be aided by a scientific advisory board, injury rather than advantage must result from further state interference.

HEALTH MISSION TO ITALY UNDER RED CROSS AUSPICES

THE War Council of the American Red Cross has announced the personnel of the medical unit to conduct a health campaign in

Italy with the stamping out of tuberculosis as its particular objective. The Italian tuberculosis unit of the American Red Cross, as the organization will be known, will be under the supervision of Colonel Robert Perkins, Red Cross commissioner for Italy.

Included in the personnel of the unit, which numbers 60 persons, are many of this country's best known tubercular specialists, as well as physicians who have been successful in the lines of work which they will be called upon to perform. The director of the unit is Dr. William Charles White, of Pittsburgh. Others are: Dr. John H. Lowman, professor of clinical medicine at Western Reserve University, Cleveland, chief of the medical division; Dr. Louis I. Dublin, of New York, statistician of the Metropolitan Life Insurance Co., chief of the division of medical statistics; Dr. Richard A. Bolt, of Cleveland, connected with the health department of that city, chief of child-welfare division; Dr. E. A. Paterson, of Cleveland, chief of division of medical inspection of public schools; Dr. Robert G. Paterson, of Columbus, Ohio, head of the tuberculosis branch of the state health department, chief of the division of education and organization; Miss Mary S. Gardner, head of the bureau of public-health nursing of the American Red Cross, chief of division of public-health nursing. The executive manager of the organization is Lewis D. Bement, of Framingham, Mass.

Dr. White, who was director of the Red Cross tuberculosis unit in France for ten months, made the following statement concerning the situation in Italy:

It must not be thought that the United States is sending this delegation because Italy is backward in this respect. As examples of Italian work one may cite the situation in the city of Genoa, which for many years, probably over twenty, has had a museum showing the various phases of tubercular diseases, as well as modern methods of combating them. Campaign and educational literature are there for distribution among the people. Attached to the museum are a dispensary and visiting nurses' school not surpassed in any of the American cities.

In Genoa also is an attractive open-air school.