

CONIOLOGY.

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(Abstract.)

In this paper, illustrated by charts, an attempt was made to show the need for a new science, Coniology, the science that treats of dust.

Until recently the importance of dust was not understood and apparently no serious attempt has been made to bring together the literature. To write a treatise that does the subject justice would require the co-operation of many scientists, and the investigation of special problems would require the methods peculiar to different sciences. The aims and methods of the physicist, of the astronomer, the physician, of the bacteriologist, etc., differ radically.

There are all kinds of dust.¹

Cosmic, volcanic and desert dusts collectively are the dust of the physicist, the astronomer and the meteorologist. Dust is of great importance in the matter of light and shade, of sunshine and rain.

Dusts due to the activity of man are chiefly of three kinds, street, house and factory dust. These are concerned in the modern dust problem. The very practical aspect of the dust problem is of course that of keeping the house, the streets and cities clean; it is a constant warfare with dust and dirt.

With an increase in occupations there is an increase in the special kinds of occupational dusts; some of them are very injurious.

Dust particles in the air are estimated by the number per c.c. The first three forms of dust, the dust of the physicist, occur sparingly on high mountains; there may be from a few to several hundred particles per c.c. Over the ocean they run from a few hundred to several thousand. When we come to the dust of everyday life matters change. Street dust runs from tens of thousands to hundreds of thousands per c.c.; house dust from hundreds of thousands to millions. The amount of factory dust depends largely on ventilation, how fully it is carried off.

Dust on high mountains and over the ocean is usually sterile, that is free from microbes. Dust in crowded communities, on the other hand, is

¹ See Proceedings for 1911, page 415.

"full of germs." Some of the microbes are pathogenic, capable of producing ill health and disease. The inhalation of infected dust produces Coniosis.¹

There is urgent need for an institution to study the Dust Problem, of Coniology and Coniosis, not only in making original investigation, but in collecting the literature and in gathering and distributing information.

In a new science any one can assist, even simple observations are useful.

¹ For a table on The Evolution of Dust see Proceedings for 1906, page 47.