

- 472 Fog Fever and Farmer's Lung. Anonymous. *Lancet* 2, 224 (July 31, 1965).

Fog fever in cattle has some resemblance to farmer's lung but with rather more complex pathological changes. In relation to fog, and possibly to air pollution, the name is a misnomer. Characteristically the condition is to be seen in animals which have been brought on to a lush second growth of grass in the early autumn. The word "fog" refers to the name of this grass (as in "Yorkshire fog" or *Holcus lanatus*) and has no relation to atmospheric conditions. This short discussion of farmer's lung deals with its relation to the dusts of exposure to moldy hay. At first this was thought to be a simple infective process, following exposure to the fungus. Later it was thought that the symptoms were a response to the mechanical irritation of the bronchioles by small vegetative particles. More recently, studies by Pepys and Jenkins have indicated it to be an allergic reaction to a fungus, particularly *Thermopolyspora polyspora*, often found in moldy hay. The possibility is suggested that respiratory diseases in other animals—for example, broken wind in horses—may be due to some similar allergic cause. -- APCA Absts.

- 473 Farmer's Lung Scheduled as a Prescribed Occupational Disease in Great Britain. A. Meiklejohn. *J. Occ. Med.* 7, 580 (Nov. 1965).

On June 24, 1963 the Ministry of Pensions and National Insurance of Great Britain formally referred to the Industrial Injuries Council the question of whether the complaint known as "farmer's lung," which was indicated as being "due to exposure to the dust of moldy hay, moldy straw or similarly contaminated agricultural produce, should be prescribed under the Act, and if so, for what occupations." The Council organized an inquiry, through their industrial diseases sub-committee. The Council's report, including conclusions and recommendations, was presented to the Minister and then to Parliament, and the disease was duly added to the schedule of Prescribed Disease. In accordance with the established practice of defining the medico-legal requirements for the purposes of disablement benefits (formerly workmen's compensation), the description of the disease was given and the occupations covered. The legislation became effective on June 21, 1965, and the completion of claims was assigned to medical boards constituted from the Pneumoconiosis Medical Panels under the Ministry of Pensions and National Insurance. -- APCA Absts.

- 474 The Ratio Between Projected Area Diameter and Equivalent Diameter of Particulates in Pittsburgh Air. F. Stein, R. Quinlan, and M. Corn. *Am. Ind. Hyg. Assn. J.* 27, 39-46 (Jan.-Feb. 1966).

A horizontal elutriator was designed, fabricated, and calibrated with clouds of spherical polyvinyl-toluene latex and styrene divinylbenzene particles. It was used to sample Pittsburgh air and deposit particles from 2.0 to 16 microns equivalent diameter on glass slides. By assuming a parabolic velocity profile between plates approaching infinite width, a theory of deposition was developed which agreed well with experimentally determined particle deposits. The authors measured deposited particle projected area diameter with a calibrated microscope reticle. The ratio between particle projected area diameter (dp) and equivalent diameter (de) varied from 0.5 to 2.8 for almost all particles, but was as high as 6.5 in extraordinary cases. Stress is placed on the need for specifying dp or de based on the application of sizing data. There are 17 references. -- Authors' abst.

- 475 Theoretical Limits of Errors Due to Anisokinetic Sampling of Particulate Matter. V. Vitols. *J. Air Poll. Control Assn.* 16, 79-84 (Feb. 1966).

Theoretical estimates of errors in calculated concentrations of particulate matter, sampled with aspirated nozzles under conditions of anisokinetic flow, were based on computed trajectories of particles in fluid streams. In the trajectory determinations gravitational effects on the particles were neglected and the fluid flow patterns approximated by those of a frictionless ideal fluid. The equations of motion were derived considering inertia as the predominant mechanism in the collection of the particulate matter by an aspirated nozzle. The particles were assumed to be spherical in shape, monodisperse, and experiencing drag force as in a real fluid. The equations of motion were solved by a procedure combining an analog and a digital computer. The theoretical error estimates for anisokinetic sampling were compared with experimental data available on investigations with spherical test dust. There are 20 references. -- Author's abst.

- 476 Selection and Preparation of Standard Calibration Dust. W.F. Todd, et al. *Air Water Poll. Intern. J.* 9, 673-683 (Nov. 1965).

Examination of a number of finely divided dusts resulted in the selection of pulverized limestone as a standard calibration dust. The characteristics of the dust make it ideal for use with a Bahco classifier for particles ranging from 1-40 microns in diameter. The dust characteristics as