

Preliminary Programme of the National Mine Safety Demonstration

Pittsburg, Pa.

OCTOBER 30 AND 31, 1911.

Board of Managers.

H. M. Wilson, representing United States Bureau of Mines; Dr. M. J. Shields, representing American National Red Cross Society; S. A. Taylor, representing coal operators of the United States; Francis Feehan, representing United Mine Workers of America; John Laing, representing the State Mine Inspectors; Thos. B. Dilts, representing Industrial Department of International T. M. C. A.

General Committee.

Chairman, H. M. Wilson; Mine Rescue and First Aid, J. W. Paul; Arsenal Demonstration, Clarence Hall; Experimental Mine, L. M. Jones; Programme, Lauson Stone; Reception, J. C. Roberts; Ushering, J. K. Clement; Secretary, C. S. Stevenson.

United States Bureau of Mines.

Arsenal Grounds, 40th and Butler Streets, Pittsburg.
OCTOBER 30, 1911.

Address of welcome, 9 a.m., Director J. A. Holmes, Bureau of Mines.

EVENT No. 1.—(Continuous from 9.15 a.m. to 12M., with interruptions for Events 2 to 6.)

Building No. 10.—Electrical laboratory, showing the effect of breaking lighted incandescent lamps which are surrounded by an explosive mixture of gas and air.

Building No. 13.—The foundry cupola in operation and method of securing gas samples and taking temperature measurements from different zones in the coke bed for the purpose of studying the fundamentals of the process and possible improvements therein.

The operation of a gas producer when burning coke at high temperature, at high capacity and eliminating ash and clinker by slagging.

The smokeless combustion of low-grade fuel in boilers when using mechanical stokers.

Operation of the long combustion chamber, designed to make a comprehensive investigation of the processes of combustion in boiler furnaces and the conditions requisite for complete combustion with coals of varying volatile matter, with various rates of firing and heating of coal with variations in the amount of air supply and in the rate of mixing of air with the volatile combustible.

Building No. 17.—Demonstration of the relative safety of single gauze and double gauze bonnetted safety lamps when subjected to a current of gas and air containing eight per cent. of methane and ethane at a known velocity.

The training in a noxious atmosphere of men wearing different types of rescue apparatus.

Exhibition of apparatus for the physical testing of explosives, including ballistic pendulum, pressure gauge, calorimeter, flame test apparatus, rate of detonation apparatus, large and small impact machines, cone and pendulum friction devices, and Trauzl and small lead blocks.

Building No. 32.—Demonstration of lignite and coal briquetting plant, making briquets from California lignite.

Gas and Dust Gallery No. 2.—Test of an electric mine motor surrounded by an explosive mixture of gas and air, and provided with explosive proof protection device.

EVENT II.—9.30 a.m.

Gas and Dust Gallery No. 1.—To determine the effect of a charge of a permissible explosive, equivalent in disruptive force to one-half pound of forty per cent. nitroglycerine dynamite, tamped with one pound of dry fire clay, when fired into a mixture of gas and air containing seven per cent. of methane and ethane.

NOTE.—At Forbes Field, October 31, at 10.30 a.m., Events II. and III. will be repeated in the presence of coal dust instead of mine gas.

EVENT III.—10 a.m.

Gas and Dust Gallery No. 1.—To determine the effect of a charge of FFF black blasting powder, equivalent in disruptive force to one-half pound of 40 per cent. nitroglycerine dynamite, tamped with two pounds of dry fire clay, when fired into a mixture of gas and air containing seven per cent. of methane and ethane.

EVENT IV.—10.30 a.m.

Near Gas and Dust Gallery No. 1.—Illustrating the ignition of coal dust by means of the laboratory coal-dust ignition apparatus devised and used by the Bureau of Mines.

EVENT V.—11 a.m.

Gas and Dust Gallery No. 2.—Illustrating the effect of removing the explosion proof protective devices from an electric mine motor operating in an explosive mixture of gas and air.

EVENT VI.—11.10 to 12 m.

Building No. 21.—Chemical and physical laboratories: Inspection of fuel, oil, explosives, gas, and other laboratories.

United States Bureau of Mines Explosion at Experimental Mine.

Near Bruceton, Pa., Oct. 30.

2 p.m. Leave Pittsburg on special train over the Wheeling Branch of the Baltimore & Ohio Railroad.

2.30 p.m. Arrive at Experimental Mine.

2.30 to 3.30 p.m. Inspection of Experimental Mine.

3.45 p.m. Explosion in Experimental Mine.

4 to 4.45 p.m. Inspection after explosion.

5 p.m. Return to Pittsburg by special train.

Programme of National Mine Safety Demonstration.

Tuesday, October 31, 1911.

FORBES FIELD, PITTSBURG, PA.

Field Officers.—Manager of Field Events, J. W. Paul; Field Marshal, Francis Feehan; Chief Usher, J. K. Clement.

EVENT I.—9 to 10.30 a.m.

Demonstration of first aid to the injured by teams of men representing mining companies from all sections of the United States of America.

Problems I, II, III, IV, V. (These problems to be published October 1).

Companies represented in demonstration of first aid to the injured and personnel of teams. (This to be filled in after entries have closed on September 30).