

NOTES AND ABSTRACTS

DAMAGING GAS EXPLOSION AT PITTSBURGH, PA.

By W. S. BROTZMAN

[Weather Bureau office, Pittsburgh, Pa.]

On Monday, November 14, 1927, at 8:43 a. m., an explosion of natural gas occurred in Pittsburgh which produced tremors throughout the city such as might have been caused by a severe earthquake. The explosion caused the death of 28 persons, the injury of more than 400, and a property loss of about \$5,000,000.

The scene of the explosion was about 1 mile west of the Weather Bureau office. The loud report and the jolt experienced at that office turned attention in the direction of its source. The first view showed what seemed to be a dense mass of dust and smoke rising from the ruins. An instant later the mass burst into flames and a ball of fire apparently 100 feet in diameter separated from the dense mass and began to rise. It rose rapidly, the volume growing smaller with ascent until finally it burned out at an estimated height of 1,000 feet.

In the immediate vicinity of the explosion buildings were leveled with but few exceptions. Within a radius of half a mile most of the buildings were badly damaged and many persons were injured. Extending the radius to 1 mile there was damage to plate-glass windows in Pittsburgh amounting to \$50,000, and damage such as broken windows, the falling of plaster, etc., was noted as far as 6 miles in all directions.

The sound of the explosion was heard throughout a radius of 15 to 20 miles.

The barograph in the Weather Bureau office rose about 0.035 inch at the time of explosion and immediately dropped back to the original pressure. A microbarograph in the Taylor Instrument Co.'s office, three floors below the Weather Bureau office, recorded an increase of 0.050 inch and immediately thereafter showed a reaction of 0.015 inch below the original pressure at the time of the explosion.

ATTEMPTS TO DISPEL FOG

By C. FITZHUGH TALMAN

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The problem of dispelling fog by artificial means is perennial. Years ago we heard that Sir Oliver Lodge had solved it by the use of an electrical contrivance erected on his house in Liverpool—but the city on the Mersey is still afflicted with fogs. Then the London County Council was approached with a scheme for clearing away the celebrated "London particular" by the use of explosives. The promoter of this scheme proposed to utilize a quantity of mortars which had been designed for the purpose of dispelling hailstorms in Italy but had failed to produce the desired effects. The county authorities refused to provide funds for this experiment and the project was abandoned.

Just before the World War the city of Lyons voted money for experiments in preventing the formation of fog in that city by coating the rivers Rhone and Saone with oil. About the same period the Cottrell process of electrical precipitation, which is so successfully applied in treating industrial dusts and fumes, was tried on the fogs of the California coast, but nothing seems to have resulted. Quite recently the naval aircraft factory at

Philadelphia has been the scene of experiments in dissipating fog by means of electrified sprays. No tangible results have been announced.

Schemes for draining off the fog-laden air from flying fields and also for warming the air over such places and thus causing the fog to evaporate have been investigated and pronounced impracticable.

On a small scale and in favorable circumstances fog can be dispelled, but all known methods are too costly for ordinary commercial use. Thus the matter now stands.

METEOROLOGICAL SUMMARY FOR SOUTHERN SOUTH AMERICA, OCTOBER, 1927

By J. BUSTOS NAVARRETE

[Observatorio del Salto, Santiago, Chile]

The many atmospheric depressions of considerable importance charted off central Chile caused much cloudiness, frequent fog, and early morning mists and light rains, especially along the coast. Precipitation was generally scant or deficient; at Santiago, in the middle of the central region, the total for the month was only 7.6 millimeters (0.30 inch), and at Valdivia, in the middle of the southern region, it was 85.3 millimeters (3.30 inches).

The principal depressions appeared on the 1st-2d, 6th-9th, 11th-14th, 20th, 23d-24th, and 26th, and the principal anticyclones on the 2d-6th, 10th-18th, 21st-25th, and 27th-31st.

METEOROLOGICAL SUMMARY FOR BRAZIL, OCTOBER, 1927

By J. DE SAMPAIO FERRAZ, Director

(Directoria de Meteorologia, Rio de Janeiro)

Southern and central regions of the country were subject to remarkably active general circulation. As many as eight anticyclones crossed the continent, mostly in the normal tracks for the season. These high-pressure areas moved swiftly and were followed by depressions with more definite action than usual. Consequently general weather conditions in the regions referred to were particularly changeful, with several moderate gales. In the first and last decades low-pressure areas were exceptionally active, with the formation of secondaries and high winds. A destructive whirlwind swept over Ponta Grossa, in Parana, with tornado effects, which fact is of very rare occurrence in Brazil.

Rainfall was very scarce in the north and center, but generally plentiful in the south, principally in the higher latitudes.

Cane, cotton, and cocoa harvesting generally satisfactory, except cocoa in Bahia, where it is smaller than expected. Coffee in Sao Paulo in excellent condition with intense flowering. Wheat in the south also very promising. Other small grain and vegetables generally in good condition.

Weather in Rio de Janeiro was very unsettled, temperature was also very variable. On the 16th the thermometer rose to 36.8° centigrade (98.2° F.) with unexpected heat. The city was visited by five moderate gales. Pressure and temperature on the average were, however, normal.