is the gas commonly used in the fumigation of imported fruits, vinehouses, insect-infested dwellings, &c. Its power of penetrating sacks of chaff, however, was unsatisfactory, though its effects when brought directly in contact with the pests would no doubt be destructive. A number of experiments were made upon three sacks —one being opened at the mouth. Finally the large amount of 6 oz. of cyanide of potassium, with the requisite amount of sulphuric acid and water, was used in 100 cubic feet of space for two hours, when the mites were found to be still living.

Sulphur-fumes (SO_2).—The same three sacks as had been used for the hydrocyanic-acid-gas experiments were subsequently submitted to the fumes of two sulphur candles for twelve hours in the same airtight chamber—mites still living. The relatively low penetrative power of this gas was also doubtless the cause of failure, as the mites when exposed directly to these fumes succumbed in about one hour.

Carbon Disulphide (CS_2).—Three sacks were taken, and 6 oz., 12 oz., and 18 oz. respectively of the material was poured into the open mouths of the sacks, which were then sewn up and wrapped in a tarpaulin. After twenty-four hours some of the carbon disulphide was still unvolatilized, and many living mites were found in each sack. Seventeen hours later the following results were observed: The carbon disulphide was volatilized, there being a strong smell of the gas. Twelve tests with a trier were then made at various parts of each sack. Two living mites were withdrawn from the top of the sack treated with 6 oz., two from the top of the 12 oz. sack, and one from the bottom of the 18 oz. sack. The sacks were standing upright, and the penetrative power of the heavy gas in these circumstances was much more satisfactory. The opening of all infested sacks was a matter which time did not permit of prior to shipment.

Carbon Dioxide (CO_2).—Laboratory experiments showed that this gas was destructive when applied directly to the mites.

Mechanical Measures.—It was noted that the mites were often particularly abundant in the material of the sacks themselves. This no doubt accounts for the fact that an improvement in the condition of infested chaff may be seen when it has been transferred from one place to another, the mites being shaken off the outside of the sacks in large numbers, and egg-laying also thus being reduced.

Trials with hand-sieves showed that if infested chaff received a similar shaking to that applied to seeds in seed-dressing, the mites, as well as any dust present, separated readily. No mites were found in infested chaff after it had been well shaken in a sieve composed