considered as identical. The fungus has, so far, not been recorded from India. The fungus does not appear to cause any serious damage except that the leaves become unsightly.

Specimens of the fungus on chestnut leaves have been deposited in the Herb. Crypt. Ind. Orient., Indian Agricultural Research Institute, New Delhi.

The author is grateful to Dr. S. K. Bose for his help and guidance during the course of this investigation.

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3. —. Ibid., 1892, 10, 608.
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A SIMPLE TECHNIQUE FOR SPORE GERMINATION STUDIES

For the study of spore germination it is usual to place the solution on a clean microslide, add the spores to it and leave them in a moist chamber. Non wettable spores such as those of Smuts, Aspergillus spp., Penicillium spp., Lycoperdon spp., float on the water drops and the germination results are inconsistent. Microscopic observation, staining, preparation of permanent slides are also difficult. In connection with our studies on spore germination in Aspergillus flavus we felt these difficulties and devised the following simple technique.

Dry spores of the fungus were smeared on the surface of a clean cellophane strip (18 x 24 mm) with the help of brush or a glass rod. A piece of Whatman filter-paper (18 x 30 mm.) is placed on a slide, 6 mm. of one of its end projecting from the edge of the slide. The filter-paper is moistened with the required solution and the cellophane paper with the spores is spread over its surface. The microslide is kept over a support inside the petridish and the projecting filter-paper end is dipped into the solution in the petridish or a small cup. The lid of the petridish is lined with a moist filter-paper to keep up the high humidity and where the solution is kept in a cup another layer in the bottom of the dish. A line drawing of the assembly is shown in Fig. 1.

After the required period of incubation the filter-paper is removed from under the cellophane strip by holding the latter with a forceps. The cellophane strip with spores is mounted between the slide and a cover glass using either lactophenol or the mountant with stain (cotton blue). Where the spores have to be processed for staining and preparing permanent mounts a strip of Scotch Magic Tape may be used instead of cellophane. In that case the spores are brushed on the sticky side of the tape.

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![Fig. 1. Spore germination assembly (diagrammatic). c, cellophane; f, filter-paper; m, microslide; s, support; d, dish with solution; b, blotting paper; p, petridish.](image)

This technique is found to give consistent results as compared with the conventional method. The method could also be used for studying the viability of the spore catches obtained on tapes such as Hirst trap (Burkard model). Rotary drum spore trap and germination of spores in root exudates, chemical solutions, etc. This method has been found to be useful in testing the aerosol viability of A. flavus spores exposed on silk threads, in our experimental studies.

Care should be taken while mounting the cellophane on the moist filter-paper as the former tends to roll up, but becoming flat immediately on absorption of moisture. The cellophane could be held by two needles until it becomes flat. The cellophane or the Scotch tape are made of cellulose and are permeable to water. They act as a good substrate for the germination of spores. The spores are kept constantly on a moist bed without either sinking into water or drying up as in the conventional method. The set up also simulates some conditions as they occur in nature. This method could be followed by those working on the germination of spores.

One of us (E. R.) is thankful to the C.S.I.R. for the award of a Junior Fellowship.

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