antisera and its reactions found to be identical with those of the group *D* antigen preparations here described.

In many respects the group *D* antigen resembles the polyglycerophosphate antigen isolated from group *A* streptococci by McCarty[13]. Both constitute not more than 1 per cent dry weight of the bacterial cell from which they can be released by simple extraction at *p*H 9 and room temperature. Both are quantitatively extracted by shaking the streptococci with glass beads in a Mickle disintegrator and both are found, not in the cell walls, but in the clear supernatant fraction recovered after high-speed centrifugation of the disrupted cocci. Chemical similarity is reflected in an immunological relationship: the group *A* polyglycerophosphate does not react with the available group *D* antisera but, in a minimum concentration of 1 mgm./ml., the group *D* antigen precipitates with a group *A* antiserum, *R*54. This serum forms strong precipitates with the group *A* polyglycerophosphate in concentrations of 0·01 mgm./ml.[13]. These serological results could be interpreted as indicating either contamination of the group *D* antigen with group *A* polyglycerophosphate or, more likely, a similarity but lack of identity of the immunological determinants involved.

The group *D* antigen is of taxonomic importance because it is found mainly in streptococci of intestinal origin and serves as the basis for their classification in a single group. A systematic survey of unrelated bacteria for the presence of this antigen has not been made. The group *A* polyglycerophosphate on the other hand, or a related antigen, has been identified serologically in aerobic, sporulating bacilli and in staphylococci in addition to streptococci of most groups[13]. It is therefore of taxonomic importance only as a possible source of confusion. Fortunately, it does not react with group *D* antiserum. Non-specific reactions will be limited to instances where the group *D* antigen, in high concentration, is mixed with serum containing antibody to the group *A* polyglycerophosphate.

In summary, group *D* antigen preparations contain glucose and α-glycerophosphate as major constituents, probably in a polymerized form. This is in agreement with the known biological properties of the serologically active material.

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An Improved Selective Medium for the Formation of Ascospores by *Aspergillus nidulans*

Their effects on sporulation are among the most conspicuous characteristics of trace elements in fungi. Numerous observations attest to the influence of mineral nutrition on sporulation, and these have been reviewed by Foster[1]. Either deficiencies or excess of particular elements reduce or inhibit sporulation.

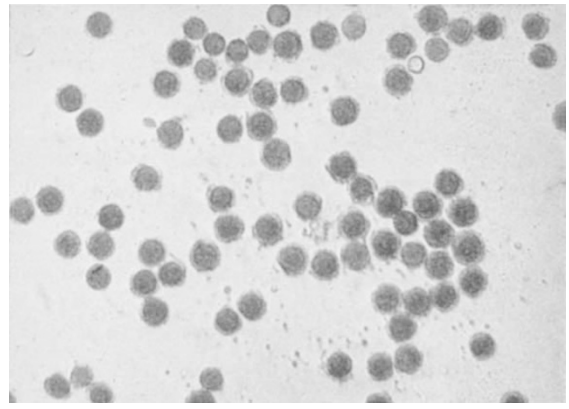

Fig. 1

In a routine investigation of the effect of metals on growth and sporulation of *Aspergillus nidulans*, 8-hydroxyquinoline was used to provide media deficient in metals following the method described by Waring and Werkman[2] modified by Gale[3]. Under these conditions it was found that a fair growth of the mould occurred; conidiospores were practically absent from the culture and replaced by a marked formation of ascospores. Microscopic examination showed less than 5 per cent of conidia in ascospore preparations (Fig. 1). These results are an improvement on those reported previously by the same group of workers[4]. 2 per cent (w/v) of ammonium oxalate was used as the only source of nitrogen, the other media constituents being identical to those already described.

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Microbial Urease

The enzyme urease occurs in a wide variety of tissues in man, namely the gastric mucosa, liver, kidney, erythrocytes, etc., as well as in bacteria, yeasts, moulds, plants and molluscs. Sumner was the first chemist to obtain urease in crystalline form and showed that it was a protein of the globulin type with an isoelectric point of five[1,2]. All species of the genus *Proteus* and many other genera of bacteria contain urease. The urease content of *P. vulgaris* is very high, and the rate of ammonia production of these